THE

WESTERN JOURNAL

OF

MEDICINE AND SURGERY.

MAY, 1842.

ART. I.—*Observations on the epidemic Yellow Fever of Natchez, and of the South-west.* By JOHN W. MONETTE, M. D., of Washington, Mississippi.

(*Continued.*)

EPIDEMIC YELLOW FEVER AS IT PREVAILED IN THE SOUTH-WEST IN THE SUMMER AND AUTUMN OF 1839.

As the summer and autumn of 1839 must constitute a memorable epoch in the history of this pestilence, not only in the West Indies but also in the southern portion of the United States, we propose to give a general sketch of the season, as well as of some other circumstances which have contributed much towards its unusual prevalence in this portion of our country. We believe that yellow fever never has prevailed epidemically, at the same time, in so many seaports and inland trading towns of the United States, as it did in the summer of 1839. Scarcely a southern port or trading town, hav-

ing direct commercial intercourse with the infected ports of the West Indies, or Mexico, escaped a visitation of epidemic yellow fever, more or less severe; and almost every inland town, having direct and unrestricted commercial intercourse with the *ports*, after they became infected, became successively infected also.

The first appearance of this disease in the United States, during this summer, was invariably in the maritime or commercial ports; and the first cases were invariably among the shipping in port, and especially among those which were direct from infected West India or Mexican ports. In every instance the disease for several weeks was confined exclusively to the shipping, before it began to spread among the resident population. This fact is abundantly established by the concurrent statements of the public press in all the infected ports. In no port of the United States was a single case of yellow fever seen, even on board the vessels, until after it had been prevailing with great mortality for several weeks in the West India and Mexican ports.

The yellow fever began to rage in the port of Havana and Vera Cruz, early in the month of May: other ports became likewise infected nearly about the same time, such as Matanzas, St. Jago and others. The disease in all these ports had become epidemic before the 1st of June. In Havana it had become epidemic on the 24th of May, and on the 28th of May several American captains and seamen had died of it in the port of Havana.* During the month of June it raged with unusual fatality, and the interments at that port for that month were 488.

It was late in August when the yellow fever began to decline; the Havana papers of August 10th state, that "the yellow fever is still very bad among the shipping." Ten days later, they state that "the sickness among the strangers has almost subsided for want of subjects."† "At Vera Cruz, it continued to rage with unabated violence," until the 16th day of October, "when there were more than 400 cases in the hospital."‡

*N. O. Bulletin. †Idem, Aug. 10th and following. ‡Idem for Sept. & Oct.

In Charleston S. C. yellow fever cases were known to be among the shipping from the West Indies early in June. On the 7th of June, Dr. Strobel, the port-physician, reported three cases of yellow fever on board the brig Burmah, five days from Havana. Two of them died the next day.* On the 10th, other cases were reported on board other vessels; on the 12th the Briganza arrived from Havana with several yellow fever cases on board. Other vessels continued to arrive at Charleston with other cases on board until the first week in July, when it began to spread rapidly among the vessels and produced much alarm. During the whole of this time the resident population was perfectly healthy, until about the 10th of July, when the disease began to spread among the people near the wharves; and in ten days afterwards it began to prevail over other parts of the city.

About this time a vessel from Havana with yellow fever on board arrived at the quarantine ground in New York. The vessel was not permitted to enter the port; and no disease was communicated to the residents of the city. A few days afterwards an infected vessel from Havana, arrived in Portland, Maine, after losing several of her crew on the voyage. Several deaths by yellow fever soon after occurred in that place in persons who had been on board this vessel while at the Portland wharf.†

In *New Orleans* vessels from Havana arrived almost daily during the season. About the last of June, several cases of yellow fever had occurred among the shipping from the West Indies. Towards the close of July cases of yellow fever among the shipping were more frequent, and by the 1st of August about 25 cases had been received into the Charity Hospital. The cases among the shipping increased rapidly in the first ten days of August, during which time the disease was gradually insinuating itself among the resident population, contiguous to the wharves and shipping. On the 12th it

*See his report—Charleston Mercury. †See Eastern Argus, Portland—also the Bulletin for July 26th, 1839.

was admitted to be epidemic in the city. From the first of August up to this time the number of admissions into the hospital varied from 8 to 15 daily.

Mobile, Savannah, and other ports trading with the West Indies, were successively infected in the order of their commercial importance; while not a single *inland* town was infected, or was known to contain a case of yellow fever, from New York to Louisiana. The whole interior country, including towns and villages, was remarkably healthy, and exempt from all the ordinary bilious diseases of the season. In no inland town did yellow fever make its appearance either in sporadic cases, or as an epidemic, until at least ten days after it had been epidemic in the nearest commercial port; and the order of its appearance in the towns on the Mississippi, was exactly in proportion to the amount of direct communication by steamboats, with New Orleans, after yellow fever was epidemic in that city. The same was true of the small towns around the northern shore of the Gulf of Mexico, from St. Joseph's and Tampa Bay to the Teche, and even to Galveston in Texas. The town of Augusta, in Georgia, in like manner became infected after the yellow fever became epidemic in Charleston and Savannah.

As we progress, we propose to trace the connection between the disease in the maritime ports and the West India ports; as well as between the disease in the former, and the interior towns dependent on them for commercial supplies.

Although we do not propose to throw much light upon the treatment of this intractable disease—this West India pestilence, which, in its worst form, derides the skill of the whole medical faculty, and all the discoveries of science; yet we propose to do what is far better. We propose to point out prudential measures and precautions, which will more effectually protect our commercial ports from the ravages of this disease, than all the improvements which have been introduced into the healing art for ages past;—the one to excel the other, as far as prevention excels cure.

Independently of any extrinsic cause, such as *imported* in-

fection, there was, during the summer of 1839, "a general atmospheric predisposition," operating over a wide extent of country, and which prepared the local atmosphere of towns and cities for the easy dissemination of yellow fever as an epidemic. This atmospheric predisposition is nothing more nor less than the "epidemic constitution" of Professor Caldwell of the Louisville Institute. This condition of the atmosphere does exist, as he very properly contends. The peculiarity of this constitution we shall endeavor to illustrate. It is that condition of the air, which appears to be peculiarly adapted to the production of yellow fever infection—a condition which exists sometimes from June to August in the middle and northern States, and from July to October in the southern states. It exists, in all probability, only at the times and places above designated; because there is no instance on record where yellow fever *assumed* its epidemic character in the United States, north of lat 40°, after August or before June; or in which it first assumed that character, south of 35°, before July or after the month of October.

This peculiarity, as we have already shown at large, consists, as we suppose, chiefly in a continued, hot, calm, and sultry condition of the general atmosphere; at which time, the air of cities and towns, being more confined than the common country air, and being respired by thousands of persons constantly for many days together, becomes thoroughly charged or contaminated by the effluvia thrown off by a population of healthy human beings. This condition of the local atmosphere adapts it to the dissemination of yellow-fever infection; and when a sufficient quantity of infected air from an infected town or city, is introduced into this local atmosphere, it assimilates the whole of the contaminated atmosphere, and thus infects a portion of a town or city. Several patients laboring under yellow fever, confined in a circumscribed portion of this air, at a high summer temperature, for several days, will impart to that portion of the local atmosphere certain properties, which will cause it, after being secluded from ventilation

for a few days longer, to assume the properties of the most virulent yellow-fever infection.

Upon these principles we think it demonstrable that yellow fever has been repeatedly, and may be again introduced from infected towns, into those which were previously perfectly healthy; and, consequently, that suitable precautions at the proper time may and will prevent a recurrence of such epidemic.

The state of the *weather* during the whole summer of 1839 was *extraordinary*, in all the southern portion of the United States. Even the month of April was uncommonly hot and dry. The same condition of the atmosphere continued to exist during the succeeding months of May, June, and July, with a few light and transient showers, the latter only south of lat. 31° in the lower valley of the Mississippi. From 31° to 34° north, the drought was excessive from May until late in October. The mercury in Fahrenheit ranged between 85° and 95° in the shade for about three hours after meridian; and at the coldest part of the nights between 75° and 80°. In towns and cities the reflected and radiated heat would increase the extreme temperature to 88° and 96° by day, and 78° to 83° by night. In the latitude of New Orleans, and within 50 miles of the Gulf of Mexico, the seabreeze reduced the temperature two or three degrees, as we ascertained by comparing Dr. Tooley's tables with those kept in the Charity hospital in New Orleans.

After the 10th of August the weather became still more dry and calm: showers ceased to refresh the air, even for a few minutes. The whole region between lat. 30° and 36° was literally parched with drought. Before the last of August the surface of the earth, to the depth of several feet, had become entirely deprived of all ordinary moisture; vegetation began to droop; creeks and small water-courses became entirely dry, or lower than they had been for many years; the cotton plant began to shed its leaves and forms; many forest trees likewise began to shed their leaves. The same condition of weather continued through the months of September and Octo-

ber: the earth was parched; grass, and small vegetation entirely withered and died, under the burning sun; the earth thrown up from the bottom of cistern-pits 14 feet deep, was as dry as dust; wells 60 feet deep, which had never been known to fail, became entirely dry; the cotton plant, in thin uplands, was as completely stript of leaves as if a killing frost had passed over it; the atmosphere continued hazy and smoky for nearly two months; many of the forest trees had shed half their leaves a month before frost; exhaustion and fatigue followed the most moderate exercise in man or beast; the sun beamed down intensely without the intervention of a cloud; large tracts of trees in Opelousas swamps entirely died.

During the months of September and October, the general atmosphere was unusually *calm* and *sultry;* not a breeze moved the stillness of the forest, by day or by night; the morning dews ceased to appear; the stars at night shone with peculiar brilliancy and twinkling. For weeks after the general air was agitated by gentle breezes, the smoke still lingered in the vallies.

This state of the weather existed from the northern limit of Georgia to the western part of Texas, through a zone of six degrees of latitude at least.

The following meteorological synopsis is made from the tables of Dr. Tooley of Natchez:

June.—This was one of the hottest months ever known in Natchez: extreme temperature in the shade from 90° to 96° for 21 days; intense unclouded sun; little or no wind, and only three or four light showers;—average temperature at 6 A. M., was 75°; at 12 M., 84°, and at 6 P. M., 88½; lowest point during nights from 70° to 80°.

July.—This month presented only a continuation of the same temperature, and general condition of the air.

August.—Same general state of weather; innumerable white cumulus clouds; intense sun; one light shower; no wind; average extreme temperature in shade, at 4 P. M., 88° to 90°, and for eight or ten days the mercury ranged from 90° to 94°—nights warm and sultry—not one breeze; last 15 nights between 65° and 70°.

September.—Temperature nearly the same, but more calm and sultry; air oppressive for violent exercise, hazy and smoky; three light showers; average extreme temperature by day 85° to 90°; lowest average temperature at night from 70° to 75°; no wind.

The following synopsis is taken from the meterological tables kept in the Charity hospital at New Orleans, where the reflected heat of the city exerts but little influence.

June.—Every day is noted as calm; only two light showers; four days are noted as cloudy; for the last 20 days the mercury ranged at noon from 80° to 86°

July.—First 20 days were moderately warm—extreme height of mercury ranging from 80° to 88°, at noon; during the last 10 days mercury ranged up between 82° and 88°; 23 days are noted as calm, and 10 of these as *foggy;* four days are noted cloudy with light showers; moderate wind on 6 days.

August.—This whole month was *calm*, *dry*, and *foggy;* every day is noted calm; yet at some hour of the day, before the 12th, there was some wind every day, with transient showers; on six days the mercury ranged as high as 90°; near the wharves it would have been 93° or 94°.

September.—This month is much as the last—calm, dry, and foggy; every day noted *calm*, 30 days; two light showers: breeze one day.

October continued the same, until the 10th, when a strong wind or gale swept along the coast south of lat. 31°.

Such was the general "atmospheric predisposition" to epidemic yellow-fever; and notwithstanding this strong "epidemic constitution," throughout all the south, the whole country, up to the actual introduction of yellow fever cases from the West Indies, was *more healthy than usual* at any season. Not a case of yellow fever was known either in town or country, until it had been prevailing to an alarming extent among the shipping in Charleston, New Orleans, Mobile, Savannah and other ports trading with the West Indies. Not the semblance of disease was seen in any point, until the "*seminarium*" and

the "*leaven of infection*" was introduced into a few principal trading maritime ports. Several weeks after these ports became infected, other towns became infected from them, as they had been from the West Indies.

The doctrine which distils a peculiar yellow-fever miasm from marshes, from putrescent animal or vegetable matters, from noisome vapors and noxious odors, exhaled from the surface of the earth, or from any combination of either of these supposed causes, must yield to the facts presented by the whole season of 1839, and by all the epidemics which appeared south of lat. 34°; for in no one instance did the concomitant circumstances accord with the prominent postulates of those theories. The general circumstances of the summer of 1839 are sufficient, we confidently believe, when duly considered by our most eminent medical men, to convince them that the doctrine of the domestic origin of yellow fever in the United States, is entirely unfounded in fact, and utterly confuted by all the facts presented in this epidemic prevalence of yellow fever: the facts themselves, if investigated, demolish the doctrine. Some of these we will notice as we progress.

In our examination of the facts, and in the arguments and legitimate deductions which we shall draw from them, we ask of our professional brethren a calm, patient, and impartial consideration. Our object is not to sustain a favorite theory, but to present the facts as they really exist, and to set them forth in their *true light*, so that those medical men, who, by a residence remote from yellow-fever regions, are precluded from personal observation, may have a fair opportunity to examine for themselves, whether the *whole matter has not been misrepresented* to them by most persons who have attempted to treat upon the cause of this pestilence in the United States. We know and readily admit, that the early doctrines instilled by our venerated professors, when we are upon the threshold of the temple of science, adhere to us with all the pertinacity and prejudice with which we would defend the religion of our fathers, right or wrong. Thus with the doctrine of local origin; having by a most unfortunate influence been adopted,

it is with great difficulty that any thing having an opposite tendency can have a reluctant examination. We do sincerely believe, that in relation to yellow fever in the United States, the medical faculty have had the subject presented to them in an *erroneous light*; and of no epidemics, more than those of Natchez. In the collection of facts relative to the introduction of the yellow fever into the southern ports and towns, we have derived our information from persons of intelligence and discrimination.

The great point to which all our facts and arguments tend, is to show that *yellow fever is a tropical disease*, peculiar to a few *tropical West India ports;* whence it is occasionally *imported*, in some form or other, into our maritime ports; and that from them it is subsequently *transported to other ports;* that it is *a commercial exotic*, temporarily transplanted upon our soil, *but not indigenous.*

It has been witnessed repeatedly, that during the strongest "epidemic constitution" as it is called, there has been no yellow fever in the United States, unless it has been prevailing to an alarming extent in Havana or some of the West India ports for many days previously. This has been exemplified repeatedly in Charleston, Mobile, and New Orleans. The same principle is confirmed at Natchez, which never has been visited with yellow fever, until *after many cases had been introduced from New Orleans.* Indeed as before remarked, this general hot, dry, and sultry condition of the air in the south is a *certain* and *infallible* indication of a healthy population—exclusive of imported infection.

We desire it to be remembered, that we do *not* advocate the *absolute and unconditional contagion*, or infection of yellow fever, and that it has the property of communicating itself from one individual to another, in a pure and free atmosphere; very far from it. But we do contend, that, under certain circumstances, independently of all local accumulations of city filth, the local atmosphere of towns or cities becomes so contaminated by a healthy population, that it becomes peculiarly adapted to the dissemination and spread of yellow fever, when

a portion of infected air is introduced. At some times a moderate quantity introduced will produce this effect; at other times, when the atmosphere is less prepared, a larger quantity is requisite.

We cannot admit, besides the general "epidemic constitution," which *rests equally over town and country*, that a mysterious *tothion* rests over a certain number of doomed points, while all others are exempt from this peculiar influence. In periods of epidemic visitation we find those towns only specially exempt, which by nature are cut off from direct intercourse with infected ports. This principle was exemplified in a most remarkable manner in the summer of 1839, in the lower regions of the Mississippi.

The pure atmosphere of maritime ports, such as New Orleans, Mobile, Charleston, and St. Augustine, is generally such, that yellow fever, when it is introduced, and becomes epidemic, is always far less malignant and fatal, than it is in inland towns, beyond the influence of the sea-breeze. Hence the disease in Natchez, Vicksburg, and Augusta, is more fatal than in the cities on the seaboard. On the same principle, it requires a much greater amount of imported infection, to bring on an epidemic in these cities than in the inland towns; hence the disease will prevail for weeks among the shipping in port, before it spreads among the resident population: but in the interior towns three or four infected steamboats, or a dozen yellow fever cases introduced, within ten days, with their bedding and cloths, will generally produce a sudden out-break of yellow fever as an epidemic. Besides, we always find that the epidemic ceases, in the maritime ports, sooner, and with a less degree of cold, than what is necessary to destroy the infection in inland towns; and in New Orleans and other maritime ports, the proportion of recoveries is much greater than in the inland towns, a large proportion of the cases being comparatively of a milder grade. The atmosphere of *interior towns becomes more contaminated*, and more stagnant, and produces a *more malignant grade of disease*, than the purer air near the seaboard.

In further tracing the origin and spread of yellow fever during the summer of 1839, we will first speak of its appearance and prevalence in New Orleans, and its extension from that city into the lower valley of the Mississippi.

We have already made reference to the fact that yellow fever cases were seen among the shipping in this port, as early as the month of June; and that cases continued to appear among the vessels during the whole of July and until the 12th of August, when it was spreading among the resident population near the wharves. On the 15th of August it was admitted to be epidemic in the city, and strangers were advised by the public authorities to leave the city. The disease spread with great violence over a large portion of the city, near the wharves. Cases multiplied rapidly. A number appeared near the canal basin, among the sailors, draymen, and laborers. Near the river wharves, where the principal shipping lay, the first victims were draymen, clerks, merchants, laborers, and others who were daily in the vicinity, or on board of infected vessels. The Charity hospital became crowded from the first of August until the close of the epidemic. The number of cases admitted into the hospital were as follows: viz., in August, 507; September, 361; October, 110; November, 87.

The report of cases in the Charity hospital is considered a good criterion of the prevalence of the disease, and is published for the information of the citizens. The greater part of the admissions into this institution, consists of seamen, foreigners, and destitute poor, who comprise two thirds of all the cases of fever in the city during the first month of its prevalence.

So soon as these reports corroborate the general impression of alarm, at the spread of the disease, all those who are able and willing, leave the city and seek some retreat among their friends in different towns in Louisiana and Mississippi, within 300 or 400 miles of New Orleans; some retire to the Bays of St. Louis and Biloxi, east of the city; some to the settlements on the Teche, Lafouche, in Oppelousas, and in the towns along the Mississippi as far as Natchez and Vicksburg.

The number of persons of all kinds who leave New Orleans suddenly, or within fifteen or twenty days after yellow fever is announced as epidemic, is seldom less than ten or fifteen thousand, and often not short of twenty thousand souls. Every steamboat is crowded; and every town on the river receives its proportion. Among them are great numbers of Irish and German emigrants, fresh from Europe, many of whom seek employment in the towns above.

As to the *cause* of the epidemic in *New Orleans*, we have already admitted a general "epidemic constitution of the air," such as prevailed over all the southern part of the United States and Texas. But this alone did not produce the disease in this city. Notwithstanding the frequent cases of yellow fever which had appeared among the shipping, as early as the last of June, and the great increase of those cases, during the whole month of July, the *population of the city*, resident and transient, never was more healthy *at any season of the year*. This fact gave assurance of an exemption from an epidemic to those who believe in the local causes to which yellow fever has often been erroneously traced. The public press congratulated the city upon the favorable prospects, and the *absence of local causes of disease.** On the 10th of August a change was admitted by the press, and on the 12th the existence of yellow fever as an epidemic was publicly avowed, and strangers were advised to leave the city.†

By a reference to the port-register of New Orleans it will be seen, that, during the month of July and the first ten days of August, in 1839, *more than twenty-five vessels* arrived in port from Havana, Vera Cruz and other infected West India ports. Most of these were small, such as brigs and schooners, and had left Havana and other ports after the 23d of June, the very time when yellow fever was most malignant in those ports.

We do not intend minutely to trace the introduction of yellow fever into New Orleans, but only to make a few general remarks on the subject of its introduction. It cannot be con-

*N. O. Bulletin, from Aug. 1st to 7th, 1839. †Bulletin, Aug. 12th.

tended by any one, certainly, that filth and such matters gave rise to this epidemic; for during the first week in August, as well as previously, the press was boasting, and justly too, of the unusual cleanliness of the city. Only a few days before the disease spread from the shipping to the resident population, the daily newspapers confidently predicted an exemption from disease, because of the absence of its usual sources, which they erroneously supposed to be putrescent matters about the wharves, and city filth. Another criterion upon which the prediction was based, was the extraordinary state of the health of the city generally.

But a few days showed the fallacy of that theory which attempts to trace epidemic yellow fever to city filth and other local causes. The disease which had been confined chiefly to the shipping, suddenly enlarged the sphere of its action, after a few days of hot, *calm and sultry* weather after the first of August.

We believe that independent of imported infection and cases of yellow fever, New Orleans is naturally as exempt from yellow-fever epidemics as any other port in the United States.

Yet when this city does become strongly infected, it becomes a source from which many other towns and cities on the lower Mississippi are liable to become likewise infected. If in our progress we give any good reasons to convince the reader that yellow fever may be, and has been transported from New Orleans to inland towns, we hope the converse of it may be admitted as true, viz:—that it may possibly have been imported into New Orleans.

We will pass on to the extension of the disease to many towns and villages on the Mississippi, and in the interior of Louisiana, during the summer and autumn of 1839. We think the facts will justify the inference, that in every instance where yellow fever appeared among the population of any of these towns, it was *the result of unrestricted intercourse with New Orleans*, after that city became strongly infected. The intercourse by means of which this disease was introduced

into the interior towns, is carried on chiefly through the agency of steamboats, which have been the principal means of extending that disease on the Mississippi above New Orleans.

During the summer and autumn of 1839, many of the towns and villages on the river within 400 miles of New Orleans, and also some towns on other streams in Louisiana, were visited by yellow fever within 20 or 30 days after it became epidemic in the city. In every instance where this occurred, the *first cases* of the disease were invariably traced to New Orleans; and *only such towns* as had free intercourse with the city by steamboat, were visited by the disease. Those towns which were cut off from such intercourse by nature or circumstances, invariably escaped the epidemic, although they might have double the population of others, and might be only half the direct distance from the city. The first individual cases, in any of these towns, were either persons landed from steamboats with the disease openly developed in their systems, or persons who had recently left New Orleans with the infection dormant in their systems when they landed, but which soon after was developed in its most malignant form.

The order in which the interior towns became infected, was that of the extent of their commerce and the frequency of steamboat intercourse with the city of New Orleans. Not a single town or village presented a case of yellow fever until 15 or 25 days after it had been fearfully epidemic in New Orleans. Yet all these inland towns had been exposed to the same "epidemic constitution" of the atmosphere, and even in a much higher degree, as we have already shown in our remarks on the weather. If some foreign agent or influence were not necessary, why did the epidemic visit New Orleans one month earlier than Natchez or Vicksburg?

Again we repeat that in no instance did a case of yellow fever occur, as a harbinger of an epidemic, in any of the interior towns, unless such case was clearly traceable to New Orleans infection. In every instance too, the disease began to spread first about the wharves and steamboat landings. Examine a map of Louisiana and Mississippi closely, and no one

town can be pointed out which was entirely cut off from communication with New Orleans, and which had any cases of yellow fever; even towns on tributary streams, which carry on a large commerce with the city in spring seasons, but which were cut off by low water in August and September, were as free from yellow fever as those which never had any such intercourse. On the other hand, *every town and village* on the Mississippi, and in the interior, within 300 or 400 miles, which had unrestricted commercial intercourse with New Orleans after the 20th of August, suffered more or less from epidemic yellow fever

As we have made frequent allusions to the agency of *steamboats* in spreading the disease on the lower Mississippi, it may be proper here to explain more particularly the manner in which this effect is produced.

The introduction of steamboats upon the Mississippi, has produced a new era in the commerce of this great valley. Formerly vessels from Havana and other ports, were often 10 and even 20 days in ascending the river to New Orleans, propelled by wind alone, against the strong current and the numerous bends of the river. Now they are towed from the Balize in less than 24 hours. But the greatest change has been effected in the commerce on the river *above* New Orleans.

Formerly the whole commerce down the river, was in flatboats, or floating arks; but few boats, comparatively, *ascended* the river, and these were barges and keel-boats, propelled by hand, at the tardy rate of eight or ten miles a day, and often less. A barge would be 30 days from New Orleans to Natchez; and one barge did not leave the city for the towns above, where twenty steamboats do now. Of course the ascending commerce of the city is a hundred fold more than it was before the introduction of steamboats. Scarcely a day elapses without the arrival of from one to five boats, ascending direct from New Orleans; and they continue their trips during the prevalence of the epidemic. The packets in the lower trade continue their trips regularly all the year, and make regular

landings at all the important landing-points above New Orleans.

These boats, after lying at the wharves for several days each trip, in the midst of the infected air of New Orleans, when the epidemic is prevailing, and after receiving their freight from the infected district, besides probably half a dozen cases of yellow fever in the meantime, at length become badly infected, and the entire atmosphere, in confined portions of the boat, becomes as thoroughly infected as the air of the infected district itself. A boat may thus contain an infected atmosphere, which may infect one or more persons at each village or landing where she touches, provided they go on board and remain a few minutes. In this manner persons visiting a boat may contract yellow fever with as much certainty as if they had visited the infected district of a city for an equal length of time. A steamboat is a large moving tavern, and may become as much infected as any stationary tavern or hotel in a city; and those boats which remain at the wharves of New Orleans for five or six days, discharging and receiving freight from the infected district, after the epidemic assumes its most malignant character, are fortunate if they do not become infected by the first or middle of September. At every town and village where the boats make a landing, there are scores of persons of all descriptions, who immediately rush on board where they remain until the boat is about to leave. If one, out of every ten, contracts the disease, the continual arrivals will soon infect twenty or thirty persons, who will probably sicken at different periods, from three to eight days afterwards. These may reside in opposite parts of the town, and each may be traced erroneously to some contiguous collection of animal or vegetable matter. Twenty or twenty-five cases thus contracted, in a strongly contaminated atmosphere, may be sufficient to produce a sudden outbreak of epidemic yellow fever.

Without multiplying examples, we will adduce the case of the steamboat Corsair, which left New Orleans in September 1839, for St. Louis, having on board at least 50 passengers of

all kinds, besides her crew. Soon after her departure many of them began to sicken with yellow fever daily, and one or two died every day during her trip. Before she arrived at St. Louis, this boat had buried fifteen of her passengers and crew at different points along the river bank. Others recovered, and many were still sick when she arrived at St. Louis. Most of these persons, no doubt, contracted the disease in New Orleans; but such a number of cases was sufficient to infect the boat, especially after receiving her freight from the infected district. Had this boat continued to run in the lower trade, in all probability, before November, she would have been instrumental in spreading yellow fever in many towns on the lower Mississippi. This is not an extreme case by any means in this region; and it is beyond doubt true, that *yellow fever was unknown in the towns above* New Orleans previous to the introduction of steamboats.

After New Orleans had become strongly infected, and the epidemic had been prevailing fatally for about two weeks, the disease began to make its first appearance at various points on the river above; and even on Red River, and the bayous south and east of Oppelousas. The points where it first appeared in this manner, were the towns and landing-places most intimately connected with New Orleans by steamboat navigation.

The following are the principal points on the Mississippi river above New Orleans; viz.

1. Donaldsonville,
2. Plaquemenes,
3. Port-Hudson,
4. Waterloo or Pointe Coupeé,
5. Bayou-Sara,
6. Fort-Adams,
7. Natchez,
8. Vicksburg.

Besides those places immediately upon the banks of the Mississippi river, there were the following towns and villages on Red River and the bayous of lower Louisiana; viz.,

1. Alexandria,
2. Natchitoches,
3. Oppelousas,
4. Thibodauxville.
5. New Iberia,
6. Franklin,
7. St. Martinsville,

The disease as it appeared in each of these towns, was clearly traced to New Orleans, for the first cases, during a week or ten days, and until it became epidemic, after having established a new centre of infection; which then produced an extension of the disease independent of any *additional importation.*

1. *Donaldsonville.* This town is situated on firm alluvial banks, on the west side of the Mississippi, and immediately below the efflux of the Lafourche, 85 miles above New Orleans. It is a beautiful and cleanly town, with a population of about 1000 souls. In high stages of the river, steamboats run regularly from New Orleans into the Lafourche, and to the whole settlement on that stream; but in low water, the outlet being dry, all freight and passengers for the Lafourche are landed at Donaldsonville; whence there is a short portage to the deep water in the bayou a mile or two below, where other boats receive them.

During the summer of 1839, Donaldsonville, like all other towns on the lower Mississippi, was remarkably healthy until the first of September, when yellow fever had been epidemic in New Orleans for more than two weeks. This state of health continued *uninterrupted*, until after ten or twelve cases of yellow fever had been introduced from New Orleans by the boats; besides a few persons who arrived from the city with the infection dormant in their systems, and soon after were attacked by fully developed yellow fever. These cases were all taken to the public hotel or to other houses in that vicinity, and near the steamboat landing. At length towards the middle of September, the local atmosphere was contaminated, or *infected;* and other persons, who had not been exposed to any other source of infection, contracted yellow fever and died, after having been more or less in the newly infected district. The remainder of the town continued healthy. Among the first persons attacked in Donaldsonville, after the first imported cases, were several persons who had visited, nursed, and sat up with the sick. The disease continued to spread slowly until frost, when about 30 deaths had

occurred besides the first imported cases. This statement is given upon the authority of Col. H. T. Williams, Surveyor General of Louisiana, and of Mrs. C. M. Thayer, both residents of that town. It will be remembered that Donaldsonville, during that period, was a regular depot for the trade of all the Lafourche country; and that passengers and freight were obliged to remain there from one to three days before reshipment. Not being a commercial town, it is destitute of wharves and other supposed sources of yellow-fever miasm.

2. *Plaquemines.* This is a small straggling village along the west bank of the river, just below the outlet of the Plaquemines bayou, 34 miles above the last. It contains a population of 25 or 30 families, besides a few stores and warehouses for the Plaquemine and Oppelousas trade. At low stages of the river it becomes a depot and carrying point for the trade; the outlet of the Plaquemines is dry at such times, and steamboats cannot pass through.

This village was entirely free from any disease until after several yellow fever patients had been landed by the boats from New Orleans; besides some few persons who sickened and died on their way to Oppelousas. A local air became infected; and the disease was thereby communicated to others who had not been exposed to any other source of infection. Twelve or fifteen persons died at this place of yellow fever.

We should have remarked before, that when any town becomes infected, or when a few cases of yellow fever make their appearance, the *mass of the inhabitants immediately desert the place;* and the cases which occur, as well as the deaths afterwards, are from among the remnant of population who decline leaving.

The next town on the river above is *Baton-Rouge*, on the east bank, upon high rolling ground, 140 miles above New Orleans, and 23 miles above Plaquemines. The population of this town is about 8 or 900. This is *not a trading town*, and no extensive settlements are near to make it a shipping point. The United States' Arsenal, State Penitentiary, and

other public buildings, give it all its importance. This town in 1839, like some others which we shall hereafter notice, *entirely escaped the epidemic yellow fever*, by a *quasi non*-intercourse with New Orleans, during the epidemic in that city. Besides the absence of a trading population, there is a shoal bar near the town, which prevents steamboats from landing in low-water; and further, the people, unbiassed by the interested policy of a *mercantile* community, and left to the deliberate convictions of their own judgments, refused to receive yellow-fever patients into their town. Their apprehensions had been thoroughly awakened to the danger of *imported* yellow fever, by an occurrence which was still fresh in the memories of many of them. I allude to the fact, that in the fatal autumn of 1829, a number of Spaniards, refugees from Mexico, had sought refuge from political dangers in New Orleans; but soon after their arrival, the yellow fever made its appearance in that city, and they were obliged to retire to a place of safety from disease. They took a steamboat for Baton-Rouge, after many of them had contracted the seeds of disease in the infected city. Soon after their arrival at Baton-Rouge, yellow fever made its appearance among them, and many of them perished. An infected atmosphere was generated, which communicated the disease to the resident population, among whom it prevailed with great mortality. For these facts I am indebted to D. P. Cain, Esq., of East Baton-Rouge parish.

This *non-intercourse*, and the *non-introduction* of yellow-fever patients into Baton-Rouge in 1839, is the only satisfactory reason *why this place escaped* during this fatal epidemic season; when every town and landing place below, and above, for 250 miles, with *uninterrupted intercourse*, were desolated by the pestilence.

3. *Port-Hudson.* This is a small village containing about 30 houses and 100 souls. It is situated on the east bank of the Mississippi, upon a firm clay bluff, about 35 feet above the river alluvion, and 25 miles above Baton-Rouge. It is the shipping point for an extensive back settlement, 25 or 30 miles distant. A rail-road from Jackson, La., intersects the

river at this point, which also contributes to render it an important steamboat landing. During the month of September, the yellow fever was introduced among the merchants, clerks, and laborers, and about fifteen of them died. Others from the country contracted the disease.

4. *Waterloo.* This is an important landing-place for the rich settlements on Fausse Riviere, of Pointe Coupeé. It is five miles above Port-Hudson, and is situated on the west bank of the river. The commercial intercourse between this place and New Orleans was *uninterrupted;* and besides the usual steamboat communication, during the epidemic in the city, a number of the French inhabitants, believing they possessed a constitutional immunity against the disease, made a visit to New Orleans in the midst of the epidemic. After a few days of pleasure and dissipation in the city, they returned; and several of these were soon attacked with yellow fever and died. An infected atmosphere was generated, and several others, who were not exposed to any *other* source of infection, sickened and died. The whole number of deaths at this place was about 15. I derive this information from D. P. Cain, Esq.

5. *Bayou-Sara.* This is a very important shipping point, on the east bank of the Mississippi, about 6 miles above the last village. The East Feliciana rail-road terminates at this point. The principal town, St. Francisville, is nearly a mile from the river, on high rolling ground; while Bayou Sara is situated on the immediate bank of the river, and is properly the landing, or shipping point for the town, and an extensive settlement for 50 miles back.

When yellow fever became epidemic in New Orleans, many persons came to Bayou Sara, and the vicinity, as a retreat from disease; others arrived at intervals subsequently; and the regular packets, besides the boats in the upper trade, continued their trips as usual during the epidemic, until many cases of yellow fever were introduced, as at other points. An infected district was produced near the steamboat landing, and the disease finally spread among the resident population; it was

also communicated to some from the country, who had not been exposed to any other source of infection. About 20 persons died in this town and its vicinity. This place, as well as St. Francisville, was remarkably healthy until after cases of yellow fever were introduced from New Orleans.

6. *Fort-Adams.* This town is situated on the immediate bank of the river, on the east side, at the foot of a high hill or bluff, many of the houses being crowded up the side of the hill. It is 75 miles above Bayou-Sara: it is a town of considerable trade for the back country, and is a shipping point for steamboats. The population is about 300. The yellow fever was introduced into this town in the same way that it was introduced into Bayou Sara and other towns below. It assumed an epidemic form late in September, and about 20 deaths occurred before it was checked by frost.

7. *Natchez* is the next in order. This city is nearly 300 miles above New Orleans, on the east side of the river. It is situated chiefly upon high ground, nearly 200 feet above the river; a portion at the immediate landing for steamboats and flatboats, is at the base of the bluff, along a narrow strip of alluvium, about 50 yards wide, and 600 yards in length. This portion of the city contains about 50 or 60 houses, including several large warehouses, stores, and hotels, with a resident population of nearly 200. It has always been the point first infected with yellow-fever, with one exception, which is easily explained. The disease always makes its first appearance among the clerks, shop-keepers, laborers and others, who reside upon the wharves or frequent the steamboats during the summer season.

Before we proceed to speak further of the epidemic of 1839 in Natchez, we will take occasion here to remark, that the beautiful *village of Vidalia half a mile distant on the opposite side of the river, has never been known to be visited by yellow fever*, even when it has been raging fearfully in Natchez. It has always continued healthy although Natchez, on the opposite bank, was perfectly desolated by that disease. The situation, as regards local causes, is in no wise different from

Donaldsonville, Plaquemines, and Waterloo, except that Vidalia *is not* a trading town; steamboats are scarcely ever known to make a landing there. Natchez, immediately opposite, is the port; and Vidalia has no more intercourse direct with New Orleans by steamboat, than if it were ten miles from the river. Hence, we infer that *Vidalia owes its exemption solely to non-intercourse* with New Orleans by steamboats. Even in 1839, when the "epidemic constitution" of the atmosphere was universal in this latitude, Vidalia was perfectly healthy. Why this peculiar exemption? The only valid reason to be assigned is, that the *indispensable requisite* is absent —the *leaven of imported infection*, which is introduced by steamboats. Vidalia is in the midst of an extensive alluvion, and as much exposed to marsh miasm as New Orleans itself, and far more than Natchez.

In regard to the state of the weather at Natchez in 1839, we have already shown that it was excessively *warm*, *dry*, and *sultry*, with a smoky or hazy atmosphere. During the last 15 days of August, the mercury ranged as high as 90° and 91° each day, in the shade; and there was but little change from that during the whole month of September. Even the month of October was characterized by continued hot, sultry weather, with the mercury ranging almost as high.

Natchez never was more healthy than during the last 30 days preceding the epidemic of 1839. Without fear of contradiction, I might say there was no city in the United States, of the same population, more healthy than Natchez was, until after the introduction of yellow-fever cases, and constant steamboat intercourse with New Orleans for nearly 30 days after yellow fever had been epidemic in that city. The whole country was alike healthy; *not a case of bilious fever was known;* even the negroes who toiled in the sun, on the hills of Mississippi, and in the swamps of Louisiana, were alike free from the usual diseases of the season. At such a time as this, our citizens were daily exposed to imported infection, for nearly 30 days after yellow fever had been epidemic in New Orleans. During that time, scarcely a day elapsed,

without the arrival of one or more steamboats crowded with people returning to the north, besides scores of Irish and German emigrants direct from New Orleans with their bundles of filthy clothes and beds, and occasionally one or two open cases of yellow fever to be sent ashore to the hospital. More or less of these foreign emigrants were left by each ascending boat, and often with the seeds of disease dormant in their systems and ready to be developed in a few days in the midst of a healthy population; steaming infection from the close and crowded huts and cellars in which they were compelled to seek shelter. Before the 20th of September there had been twenty deaths in the hospital, chiefly from among this class, and from the sick taken off the boats. Besides these, there were several persons residing in Natchez who had imprudently visited New Orleans, and who were attacked soon after their return.

Such was the state of things in Natchez for more than three weeks before the epidemic broke forth in its fury. Under these circumstances, and with the daily importation of large quantities of blankets and woollen goods for the planters, all from the infected district of New Orleans, could any one reasonably expect *less than an epidemic yellow fever?* Southern people, who are unbiassed by interest, know too well the character and habits of this disease to plead ignorance on the subject. If, knowingly, they permit their better judgment to be influenced by a class of interested merchants, and suffer pestilence to be imported and spread among the helpless and innocent population, the innocent and the guilty must suffer together. But the municipal authorities must answer to God and their fellow citizens for the untimely deaths of hundreds of helpless poor, and many valuable citizens.

After many cases of yellow fever had been introduced and others had occurred, there seemed suddenly to be two principal centres of infection in the upper part of the city. These were the City Hotel, and the Railroad Hotel, both within fifty yards of the west end of Main street. The former was the resort of American strangers generally; the latter, in like man-

ner, was the resort of the German emigrants, of whom there were many in the city. Each of these hotels were more or less crowded with strangers, daily arriving from New Orleans.

Yet in these houses and vicinity, an infected air was not produced until late in September, after the disease had prevailed near the steamboat landing for nearly two weeks, and several persons had died at the hotels.

Here we would remind the reader that in 1837, the first principal focus or centre of infection in the upper city was a German tavern on the corner of State and Commerce streets, which at that time was the principal resort of the German strangers. This custom was transferred to the Railroad Hotel in 1839, when the former was discontinued. In 1839 that portion of the city near the corner of State and Commerce streets was almost exempt from the disease; while in 1837, there being no such house as the Railroad Hotel, that point was comparatively exempt from the disease.

It was not until the 22d of September, 1839, that the disease began to spread rapidly near the steamboat landing; immediately after which a large portion of the population fled to the surrounding country for protection, and by the 28th the population of the city was reduced to 800 or 900 souls. The epidemic raged with great malignity until the middle of November, when 235 persons had died, viz:—69 in September, 135 in October, and 31 in November. Three practising physicians died, and three recovered after the most severe attacks. The whole number of cases was about 500.

The advocates of its local origin from city filth and putrescent matters, or from decaying vegetables, or miasm, were compelled to abandon that ground as *untenable* in the present epidemic. The facts relative to the beginning and spread of this epidemic, made hundreds of proselytes to the doctrine of imported infection, which could never have been effected by human reasoning.

Such had been the reliance upon a cleanly condition of the city, as an infallible guarantee of health, and as security against an epidemic, that the municipal authorities, in accor-

dance with these views, had caused the whole city to be thoroughly cleansed and spread with lime as a preventive. So effectually had this been accomplished, that the advocates of the local origin confidently predicted an exemption from an epidemic visitation, and derided the very mention of the word *quarantine*. The malignant epidemic which soon after broke out, convinced them that *something besides city filth, and the like, could* produce epidemic yellow fever.

It may be inquired, why is Natchez so frequently visited by yellow fever, when Vicksburg and other towns above Natchez have frequently been exempt? The reason is clear and unequivocal to my mind. Natchez is about 300 miles above New Orleans, a run of 36 or 40 hours for ordinary boats. It is the first port of entry, and by far the most important commercial point between New Orleans and St. Louis. It is the only point in this whole distance where a public hospital is prepared for the reception of sick and indigent boatmen, and yellow-fever patients from the ascending boats. Scarcely a boat from New Orleans passes Natchez without making a landing, at all seasons, and especially during an incipient epidemic in New Orleans, to discharge the numerous passengers and emigrants flying from the disease, as well as to relieve themselves of the sick who may be on board, either among the cabin or deck passengers. Hence every boat ascending to St. Louis, or the Ohio, is sure to make the *first principal landing at Natchez*, and the packets frequently make it the termination of their upward trips. Every boat making such a landing at Natchez, has no occasion to stop again at Vicksburg, or the intermediate towns; because her principal passengers, not bound for the upper country, *as well as all her sick*, are discharged at Natchez. Before other cases of disease are developed, the boat is in a colder region, or far above Vicksburg. In such cases, it is common for the boats to stand out in the river, at Vicksburg, for a few minutes, until the yawl only is sent ashore.

Hence, when the hospital at Natchez, (*which is within the city*) is kept open for the reception of yellow fever patients,

it *serves as a lure* to attract infected boats to her wharves, and *invite pestilence among her own citizens.* This very policy often protects the towns above and below, while it exposes her own citizens to the horrors of a malignant epidemic.

The converse of this has been clearly proven in two epidemics—those of 1839 and 1841. In 1839, Vicksburg, the next important town above Natchez, continued free from yellow fever until after Natchez had become so thoroughly infected and desolate, by the 10th of October, that the upward-bound boats ceased to make landings there, and passed on to Vicksburg, 110 miles above, as their first principal landing above New Orleans. What was the result? *In fifteen days from that time, yellow fever was epidemic at Vicksburg,* in all the lower part of the city near the steamboat landing. Again, in 1841 Natchez closed her hospital and established a quarantine as soon as yellow fever was epidemic in New Orleans. What was the consequence? The first principal landing for upward-bound boats was at Vicksburg, which continued healthy up to that time, but was visited *with a most malignant epidemic* within twenty days after the Natchez quarantine was enforced; while Natchez, thus protected, continued perfectly healthy during the whole time the epidemic was raging on both sides of her.

Here I will cite another argument somewhat analogous, in relation to the protection of *Washington,* six miles east of Natchez. We have already, in the early part of these observations, spoken of the malignant epidemic which was introduced into Washington from Natchez in 1825. In 1839 all parties agree fully in the "epidemic constitution" of the general atmosphere on the lower Mississippi; this existed in Washington, no less than in Natchez. Such was the state of things when the people of Natchez fled at the first alarm of yellow fever in 1839. Washington was one of the principal retreats; and the town authorities, having the scenes of 1825 full in their minds, had watched with anxious solicitude the reckless policy of Natchez, and the gradual introduction of yellow fever into the city, and determined to protect their

own citizens. On the 15th of September, when the disease was making its gradual advances in Natchez near the wharves, the selectmen of Washington passed an ordinance *prohibiting the introduction* of all feather-beds, bedding, blankets, and other porous articles, from Natchez, after the 18th of September, believing that the disease would then be epidemic in that city. Yellow-fever patients were expressly prohibited from entering the town. The ordinance was rigidly enforced, and the whole town, with its crowded population, was entirely protected from the threatened pestilence, although about eight cases of disease developed itself in those who came out from Natchez apparently healthy. Every one in the slightest degree acquainted with the habits and approaches of this epidemic, were fully satisfied that it only required the *spark* to ignite the pestilential influence. At that time Dr. Samuel Hogg, formerly of Nashville, expressed to me his extreme fear that the crowded state of Washington would lead to an outbreak of yellow fever. But the whole population continued as healthy as usual, protected, as all admitted, by the "quarantine" as it was called. Those who had witnessed the epidemic of 1825, concurred in the opinion, that the general atmosphere in 1839 was better adapted to spread an epidemic than in 1825. In 1825 the intercourse with Natchez was *unrestricted;* daily supplies of goods, woollens and negro blankets, were received by the merchants. A malignant epidemic followed in 1825, and in 1839 all continued healthy.

8. *Vicksburg.* This is a port of entry on the east side of the Mississippi, about 400 miles above New Orleans. It is situated upon the side of a steep hill, or bluff upland, facing the river, and upon a strip of alluvion at the base of the bluff, about 50 yards wide, and half a mile in length. The latter is crowded with stores, warehouses, produce-stores, and numerous small shops, up to the immediate bank of the river, near the steamboat landing. The population is about 4000 souls.

This city, during the most fatal epidemics which have desolated Natchez, *has always been exempt until* 1839, when only a partial epidemic, which was checked by frost, had

commenced. The importance of Vicksburg, as a port and shipping point for steamboats, has been increasing for the last few years; and in 1839 the railroad leading to Jackson was put into operation. This at the time drew a great many Irish laborers to the place when the yellow fever drove them from Natchez; and since the completion of the railroad, the commercial as well as the travelling intercourse has been augmented.

In 1839 this city continued as healthy as any city in the south until about the 10th of October. At that time the lower part of the city, at the foot of the bluff, began to be very sickly, and several deaths occurred every day, until the last of the month, when there had been as many as seven deaths per day for a part of the time. None could deny that some malignant disease was daily sweeping off its victims; but as none of the medical faculty of Vicksburg, although equal as a body to any in the Union, had ever seen yellow fever, and did not apprehend any such thing, from the cleanly state of the city, they concurred generally in calling it *congestive fever*. It continued its ravages until checked by frost early in November. By that time, at least 50 persons of all kinds had fallen victims to it; of these deaths about 30 occurred in the vicinity of the steamboat landing and many others near the railroad depot, among the Irish shanties. In the latter place an infected atmosphere was generated, which communicated the disease to those who had not been otherwise exposed.

This disease was, most *unquestionably, yellow fever*. Its symptoms, general character, and issue, have been detailed to me, and places it, in my mind, beyond a doubt. Dr. Hicks, who practised in the midst of it, towards the last of October, assured me that it was genuine yellow fever, with genuine *black vomit*. This peculiar characteristic of the disease cannot be mistaken by any physician who has once seen and examined it. Since the close of the epidemic of 1841 in this city, I have conversed with several of the physicians of Vicksburg, who had become familiar with *yellow* fever, and they were free to admit, that the fever of 1839 was genuine yellow fever. Many cases of

yellow fever in the first stages assume such an insidious aspect, that our most discriminating *teachers of medicine,* who have not been familiar with it, would be greatly deceived in their diagnosis, and mortified in their prognosis. Even in the advanced stage, there are cases where one not familiar with it, would pronounce a patient *convalescent* when he was *moribund.*

The first cases of this disease at Vicksburg in 1839, were brought there by steamboats; some were cases openly developed, and others were persons with the seeds of disease in their systems, but apparently in perfect health. An infected atmosphere was created near the steamboat landing, and near the railroad depot, which was gradually extending itself when it was neutralised by frost.

It is a material circumstance in this epidemic, that the city was *unusually healthy* for nearly three weeks after the epidemic had been raging in Natchez, and the first cases were certainly imported. And, had they been imported early in September, the epidemic would have matured before frost, and would have swept off five times the number it did.

How was it in 1841? Natchez established a quarantine; all the boats, with their refugee emigrants, and *yellow-fever patients,* or those with the seeds of disease dormant in their systems, were carried on to Vicksburg, and soon they spread yellow fever *there,* as they *would have done,* and as they *had often done before,* in Natchez. In twenty days, or by the 20th of September, they succeeded in producing epidemic yellow fever in Vicksburg, and it raged with great malignity until the first of November. Hence the first regular epidemic in Vicksburg occurred while Natchez, protected by a quarantine, escaped entirely.

The same principle was exemplified and illustrated, in the case of other towns, and especially Grand Gulf. This town in 1839 permitted free intercourse with all ascending boats which chose to land, and freely admitted the sick, and others. The consequence was that there were about 20 deaths from yellow fever, and the disease was assuming an epidemic form,

by generating an infected atmosphere, just as it was arrested by frost. The appearance of these cases in Grand Gulf was simultaneous with those in Vicksburg, and occurred only after boats ceased to land at Natchez. But in 1841, the case was altered. The people of Grand Gulf, encouraged by the example of Natchez, prohibited intercourse with infected boats, and utterly refused to permit yellow-fever patients to be set ashore within the town. Several of the regular packets desired to send some of their crews or engineers ashore for medical aid; but it was resisted by the people. Only two cases of yellow fever occurred in Grand Gulf in 1841, and they were in persons who had arrived from New Orleans, apparently in perfect health, but with the infection dormant in their systems. Grand Gulf continued as healthy as any town on the river.

Our attention will be next called to a brief notice of the disease as it prevailed in the towns on Red River, and upon the bayous west of the Mississippi and south of Red River; and also, incidentally, to its appearance along the northern shore of the Gulf of Mexico, and in Charleston, S. C., and Augusta, Georgia.

(TO BE CONTINUED.)

ART. II.—*Cesarean Operation terminating fatally.* By JOHN TRAVIS, M. D., of Carroll county, Tennessee.

In February, 1837, I was called to Mrs. P——, a corpulent lady, the mother of seven children, and wife of E. P——, of Carroll county, Tennessee. Her full period of utero-gestation had arrived, and she had been in charge of a midwife 48 hours, suffering the most excruciating pains of labor, without any beneficial effects. On examination I found that the os uteri had not dilated, nor was it susceptible of dilatation. It is true there was an aperture the size of a dime, but this could

not be enlarged by any possible effort of nature. I learned that the midwife who delivered her of her last child, had, to use the language of my informant, *torn her to pieces*. The uterus had been ruptured, the bladder injured, and the vagina and its appendages so lacerated, that her life was saved with great difficulty, and her health was only restored after being in the charge of a physician and good nurse for five months. She could not retain her urine, it passed off by drops, keeping her linen constantly wet. In fact she had been ruined by the midwife, and from a careful examination it appeared extraordinary that she became pregnant after having sustained so serious an injury. The patient herself expressed astonishment at the event, as penetration could be effected only to a very small extent.

Having never performed the Cesarean operation, and knowing its fatal tendency, I was unwilling to attempt it alone, and sent for Dr. Moore, then of Huntingdon, to assist me. On his arrival he made an examination, and ascertained that there was no chance to deliver the child without an operation, but expressed his unwillingness to undertake it, and informed the patient, as I had done previous to his arrival, that such operations had generally failed; that in England nine cases out of ten proved fatal, &c. But she urged us to operate, saying that she would have it done if she was certain that death would supervene while she was under the knife. She said her sufferings had become insupportable, and her friends likewise urged us to operate.

Being thus importuned, we finally determined to perform the operation, knowing that the life of the child might be preserved, and that there was a remote probability of saving the life of the mother.

The woman was now placed on a narrow bed, on her back, and everything being ready, I made an incision in the abdominal teguments with the scalpel, from the umbilicus, to within an inch of the symphisis pubes; then the linea alba was divided, next the peritoneum, and finally the uterus. The child being removed, the wound was closed with sutures, adhesive

strips, &c. The patient said she was easy, and that she did not suffer much pain from the operation.

She was put under a rigid antiphlogistic treatment, and for four or five days appeared to be doing very well. The lochial discharge passed as after a common delivery. About this period, in spite of our entreaties, she sat up and walked about in the house. On the sixth or seventh day she complained of a burning in her stomach and abdomen, vomited incessantly, had high fever, and died on the eighth day. Her child is a fine boy and is still living.

In connection with this case, I cannot help remarking that it is a matter of sincere regret, that there is no statute to prohibit ignorant women from the practice of midwifery. The necessity of the operation just mentioned, was, no doubt, caused by the ignorance and rashness of a midwife in a former pregnancy. I have lately seen another woman who was delivered of a child ten years ago, and she was injured like Mrs. P. She has had no catamenial discharge for ten years, nor any intercourse with her husband.

January, 1842.

Bibliographical Notices.

Art. IV.—*Report on the Establishment of an Asylum for the Insane, made to the Legislature of Indiana, during the Session of* 1841–2.

At the late session of the Legislature of Indiana, a communication from Drs. John Evans and Isaac Fisher of Fountain County, on the subject of establishing a Lunatic Asylum, was presented and referred to the Committee on Education. Mr. Ritchey, for that committee, on the 25th of January, made a very valuable and favorable report on this matter, and eloquently urged the establishment of a State Asylum for the reception and cure of lunatics. The necessities and sufferings of this class are clearly set forth, and the advantages of such an institution to the public are plainly related in that document. In Indiana, according to the late national census, there were in 1840 one hundred and thirty-eight lunatics and idiots supported at the public cost, and four hundred and twenty-four at private charge; and the labor and service of the whole of these five hundred and sixty-two persons were lost to their families and to the State, besides the expense of maintaining them.

What proportion of these, already insane, may be restored, can only be determined by personal examination, or tested by the experiment of hospital treatment. This, however, is cer-

tain, that most cases of short standing—a year or less—may be cured; and on the other hand, that most of those whose disorder is older, cannot be cured—but yet, that even the incurable can generally be improved. It is also certain, that of all that may hereafter become insane, about nine tenths may be restored to health, usefulness, and enjoyment; and their friends and the State thereby be spared the expense of maintaining them, and also gain the advantage of their labor, and counsel, if they are properly treated. Whether the public and individuals of Indiana shall be at the expense of maintaining their insane for life, in uncured lunacy, or shall maintain them for only a few months, and then enjoy the advantage of their strength and intelligence—this is and must be the pecuniary question for the people of that State. But the pecuniary view of the matter is the least important; the health, comfort, and happiness of its citizens are of far more value to society, than their bodily service. This report, after speaking of what has been done in other States for public charities, tells the people how little has been done in Indiana.

"Your Committee cannot refrain from expressing their deep and pungent regret, that, while almost every other charitable enterprise has been undertaken and pushed forward with a zeal, perseverance and energy truly commendable, this most charitable and benevolent of all the enterprises which the spirit of philanthropy, or even Christianity, has ever recommended, should be so long neglected and postponed by the good people of our beloved State. While we have been legislating for the "*relief*" of one class after another, we have been *deaf* to the shrill and piercing cries of the maniac. While we have been spending millions upon millions upon a system of internal improvements which has involved the State in interminable difficulties, not one cent has yet been appropriated towards the establishment of asylums for the deaf and dumb, the blind, or the still more unfortunate class who have been deprived of their reason."

"While Indiana has been thus shamefully squandering her resources on works, which are likely to be viewed only as monuments of her *folly*, and neglecting to build up those institutions which the cause of humanity should have erected, as monuments of far nobler character, our own suffering fel-

low citizens have been knocking for admission into the charitable institutions of our sister States, and knocking in vain."*

In view of the arguments offered in this report, and of the facts which late investigations have developed, relative to the prevalence of insanity every where, and of its curability, in proper institutions, we are led to wonder that the Legislature of Indiana could have hesitated to adopt the advice of their committee, and to believe, that nothing but the inevitable necessities of these times of pecuniary embarrassment, could have postponed the establishment of a Lunatic Asylum in that State. But we may hope that the convictions of the people will demand, and their finances permit the accomplishment of this desirable and humane object in another year.

For this, we regret that the Legislature printed only five hundred copies of this report. We would rather they had published ten or twenty times that number for general distribution. As it is, we urge upon every paper in that State to reprint it; to carry its facts and arguments home to every citizen of Indiana, and thus, we are confident, that every legislator will go up to the capital instructed to vote for a State Lunatic Asylum at next session. E. J.

ART. IV.—*Proceedings of the Medical Convention of Ohio, held at Columbus, on the 5th, 6th, and 7th of May, 1841: with several papers read before that body.* Columbus, Wright and Legg, 1841, pp. 84.

As originally proposed, this convention assembled every third year. At the second triennial session, held at Columbus in January, 1838, an adjournment was made to May 1839, and it was recommended that the meetings thereafter should be held annually in that month. An interval, howev-

* Report, page 5.

er, of two years occurred between that session and the one the proceedings of which we have before us.

The number in attendance at the last meeting, does not appear to have been so great as in the preceding years; about fifty persons only were present, representing fifteen counties of the State. Dr. George W. Boerstler was chosen President; Drs. Russel, Fisher, Harrison, Howard, Miller and Steele, Vice-Presidents; Dr. Kreider, Recording Secretary; Dr. Mendenhall, Corresponding Sec'y.; and Dr. Thompson, Treasurer.

The Journal of the convention does not exhibit a large amount of business, owing partly, no doubt, to the small number of members present, and partly to the circumstance that all the committees, save one, appointed at the last session, failed to make reports. Papers were presented by Drs. Harrison, Dawson and Bigelow, and a report on Auscultation and Percussion submitted by Drs. Mendenhall, Howard and Brayton. The reading and discussion of these papers, with the passage of sundry resolutions instructing divers committees to investigate a variety of subjects therein named, and make reports at the next meeting, constituted the chief exercises of the convention. We say *chief*, because a portion of time was occupied in listening to lectures on *tight-lacing, phrenology and quackery*. You smile, gentle reader! at such a conjunction of most dissimilar matters. Nevertheless it is true. The very first thing done in convention, after the body was organized, was the adoption of the following resolutions:

Resolved, That Professor Mussey be invited to deliver a discourse upon the subject of "Tight Lacing," at such time as may suit his convenience, during the session of this Convention.

Resolved, That Professor Mussey be invited to deliver a discourse upon the subject of Phrenology, at such time and place as may be designated, during the present session of the Convention.

And on the morning of the second day we have this:

Resolved, That Dr. J. P. Harrison be requested to deliver a lecture on the subject of quackery and empiricism, during the sitting of the Convention.

We sincerely hope the members were benefited by these

discourses; yet the idea of such "grave and reverend signiors" sitting in wrapt attention—*arrectis auribus*, to speak pedantically—under lectures on tight-lacing and quackery (we say nothing of phrenology), smacks a little of the absurd, and is somewhat laughter-moving withal. Are there no quacks and empirics in all the fifteen counties whence these gentlemen came, that they must needs have the creatures described? Verily, it would be strange if such omnipresent bipeds were not to be found in those regions somewhere! Are *corsets* growing more in favor there, or are the *laces* drawn tighter than formerly, that the convention must visit them with their objurgations? Truly, we did suppose that the "buckeye ladies" (whom we learned to prize, what time we dwelt north of the Ohio), with their characteristic good sense, had altogether eschewed such fearsome things! If, though, it be otherwise, and the keen sarcasm and massive argument of the eloquent lecturer (who, as some of our readers wot, wields with equal readiness the light blade of the Soldan and the ponderous mace of him of the Lion-heart), be insufficient to loose the said strings, we beg the convention to try the virtue of the famous composition of Ernulphus the bishop, and that the same be read "with good accent and good discretion" at the next meeting, adding uncle Toby's *Lillibullero* as a running accompaniment, if they choose. Badinage aside, though, it seems to us that such an assemblage is not suitable for matters of this kind. Popular lectures, even on well-worn subjects, may be good in their place, but surely that place is not a medical convention. Neither is it any better suited to demonstrations in anatomy; and we pray, therefore, that Professor Shotwell may *not* "prepare a subject and demonstrate the surgical anatomy of Hernia to the medical convention at its next meeting," as he is requested to do. If elementary instruction of this kind, or any other, be required by members, we suggest the propriety of their attending the prelections of that gentleman and his colleagues the ensuing winter.

The papers read to the convention, and printed with the proceedings, are not without interest, and give evidence of

what such an association may do, if its members are imbued with the proper spirit. Two of them are from the ready pen of Professor Harrison of the Medical College of Ohio. The one is a sketch of the diseases induced by mercury, the other is an essay on medical education. In the former, Prof. H. gives a rapid view of the various morbid effects resulting from the inordinate or inappropriate use of mercury, with the treatment applicable thereto. He divides these effects into the immediate and the remote. The former are those arising from "its violent action on the stomach, bowels, mouth, skin, and nervous system." The latter embrace "palsy, ulcerations of the soft parts, and diseases of the bones." He contends strenuously, in opposition to Musgrave, Carmichael, Chapman and others, that mercury does "produce diseases of the throat, skin and bones, with their investing membranes, analogous in aspect to those of an unequivocal venereal origin, and equally destructive in their progress." In support of this opinion, he adduces several cases derived partly from his own experience, which certainly go far towards substantiating it. He admits, however, that these diseases have no distinctive and peculiar marks whereby they may be distinguished from venereal affections of the same nature. In their treatment he relies chiefly on arsenic, in the form of Fowler's solution, and sarsaparilla. Narcotics will be required to abate morbid irritability, and where a cachectic state co-exists with this, as we presume it does in most instances (for it is doubtful whether mercury would produce the effects under consideration in any other than a depraved habit of body), tonics alone or combined with narcotics will be found to fulfil the indication better. The hydriodate of potash combined with the iodide of iron, given in pretty large doses, has of late years been used with remarkable success in these cases. As a local application to the ulcerated surfaces, the professor recommends a mixture of sulphate of copper, Peruvian bark, and balsam copaiva, which he also employs in the ordinary mercurial sore-mouth. Attention must be paid to regimen; the diet should be bland and nutritious, tea, coffee, and all stimulating drinks be-

ing avoided; flannel or cotton should be worn next the skin; a regulated temperature should be maintained in the apartment, and the patient must avoid a damp cold atmosphere.

The subject of medical education, although a very trite one, Prof. H. treats with his usual ability, and he has succeeded in making a very interesting essay out of it. His views on the subject are perfectly orthodox, and such as will meet with the entire concurrence of all who have the good of the profession at heart. He insists upon a high standard of qualifications, both as a preparation for the study of medicine and for the discharge of the responsible duties of a medical practitioner. To bring about the reforms which he conceives to be necessary, two modes are pointed out: 1st. That physicians should not receive as pupils young men who are deficient in moral or intellectual qualifications: 2nd. That the sessions of our medical schools should be prolonged, the number of chairs increased, and a greater length of time be devoted to the acquisition of a strictly professional education. Recommendations similar to these were promulgated ten years ago in an "Essay on Medical Education," from the pen of the senior editor of this journal, who at that time filled the chair of Theory and Practice in the medical college of our sister State. The following resolutions pertaining to the same subject, and apparently called forth by the reading of the essay, were adopted by the Convention:

Resolved, That the system of Medical Education in the United States is radically defective.

Resolved, That the evil can alone be remedied by those having charge of medical schools.

Resolved, That it be respectfully, but earnestly, recommended to the Trustees and Professors of the medical schools in the United States, to meet in Convention, at such time and place as may be agreed upon by themselves, to digest and recommend a general system of Medical Education.

Similar resolutions were passed at the second session of this body, in 1838. Subsequent to that period, the Medical Society of the State of New York named the 12th of May, 1840, and the city of Philadelphia, as a proper time and place for a gen-

eral meeting. This meeting proved a failure, as very few of the schools selected representatives to attend. (See West. Journal, vol. I., p. 366). The indifference and apathy manifested in relation to this subject, is truly a matter of astonishment. All concede the necessity of reform, and to secure it, a little concert of action would be amply sufficient. Indeed, it is in the power of one single school to effect this change; and that school is the University of Pennsylvania. Standing, as she confessedly does, at the head of similar institutions in this country, as well by her age as the long line of illustrious names that have graced her halls, she is bound by every tie of duty to herself, and the profession, to set the example. No one can doubt that if she were to do this, the desired reformation would instantly go forward. But so long as she withholds her assent, or refuses to take any decided step in the matter, it will be in vain to expect any alteration in the existing state of things.

We cannot, however, entirely agree with the second resolution quoted above. It is not in the power of medical schools *alone* to effect the reform. That much may be done by proper action on their part, with the other measures proposed, is freely admitted; yet this will not wholly guard against the admission of unworthy men into the profession. One source of evil lies deeper still; society at last must aid in applying the corrective. So long as people look to the *man* rather than his *skill* and *attainments*, and suffer themselves to be cajoled and wheedled; so long as individuals are found who will court and flatter, and

> "—— bend the pregnant hinges of the knee
> That thrift may follow fawning,"

so long will our noble profession be disgraced by base and miserable pretenders.

The "Report on Auscultation and Percussion" is short and pertinent. It sets forth in a few words the necessity of accurate diagnosis to the successful treatment of disease, and replies to the objections that have been raised against physical explo-

ration, by showing its usefulness in affections of the lungs, heart and abdominal viscera, and its importance in the diagnosis of pregnancy, &c. It asserts the practicability of physicians in country practice becoming skilful in the application of this means, and concludes with the following excellent sentiment: "it behooves every conscientious physician to avail himself of all the means in his power, by which certainty of doing good is added to the present scanty resources of our art."

The fourth article, entitled "Florula Lancastriensis," is a catalogue of the flowering and filicoid plants indigenous to Fairfield county, Ohio, accompanied by notes of such as are medicinal. More than 400 plants are contained in this list, which seems to have been drawn up with great care and labor. The author, Dr. Bigelow, urges upon his professional brethren the importance of the study of botany; he says he has found within the limits of his own county, more than one hundred and ninety species of plants possessing medicinal properties, less than one half of which have their medicinal histories reduced to anything like certainty. We commend the following remarks to the notice of our readers.

"With a little care and attention, every physician could become tolerably well acquainted with the local botany within the sphere of his daily avocations, and an enumeration of the species of plants from all quarters of the State, would be of great value to systematic botanists in affixing the precise limits and localities to our more valuable ones."

"There are many points in the study of this fascinating science, in which the enlightened practitioner of medicine must feel an abiding interest, particularly those points having reference to the anatomy and physiology of plants, and a faithful inquiry into their sensible and medicinal properties."

These considerations are certainly sufficient to entitle this science to a claim on our attention. But, apart from its interest in this respect, it has attractions that are peculiar to itself. It opens one of the purest sources of enjoyment that can be offered to the mind. Witness the ardor and devotion with which the botanist pursues his researches through all changes of time and seasons, never wearying, never tiring, and when

compelled to desist, burning with the same zeal as when he began. He seems to live in a little world of his own—a beautiful and ever-varying one, too, wherein nothing profane has ever entered, but which continues as bright and pure as when first called into existence by the Great Author of life.

The fifth and last paper is from the pen of Dr. Dawson, whose name is familiar to the readers of this journal. It relates to a form of fever that prevailed in the eastern part of Green County, Ohio, where the author resides, and bears the impress of an acute and inquiring mind. The season that preceded this epidemic was of an unusual kind, exhibiting the extremes of humidity and drought. Its effect on the health of the inhabitants was evinced rather by a change in the character of the ordinary diseases, than by any unusual amount of sickness. Remittent and intermittent fevers were more prevalent than formerly, and the latter visited sections of country previously exempt from it. The epidemic occurred both in winter and summer; it received a variety of names. Some called it typhus from its resemblance to that affection.

"*Symptoms.*—The onset of the disease was manifested by pain in the head, sometimes confined to a circumscribed spot; severe cases did occur, however, in which the cerebral distress was so inconsiderable as to be unnoticed. Some complained of chills in the commencement, though it was by no means a pathognomic of the disease.

The tongue was generally covered with a *thin white* fur, through which the papilla protruded, the sides and apex being red, and the shape not much changed from the normal. There was no appreciable abdominal tenderness in the commencement, but it generally supervened after a few days had elapsed, and with it protracted discharges from the bowels. The sanguiferous system was but little disturbed—the pulse *small* and *soft*, and seldom exceeded 80 beats to the minute. Skin *soft* and *natural*, except a slight elevation of temperature. Rose colored spots *occasionally* made their appearance over the whole surface, but always on the cheeks. They would make their appearance and recede again several times in the course of twenty-four hours. A dry cough attended most cases."

"This description seems to present no formidable array of symptoms; yet it is a fact, that the disease under the best di-

rected efforts of the physician, did sometimes last fifty days. Few cases recovered under twenty days, and it was not uncommon to see convalescence protracted to four or five weeks."

"Much evidence might be cited to prove that it was contagious, as much so as scarlatina, and generated and propogated in a similar manner."

Concerning the pathology of this disease, the author offers nothing but conjecture; as, owing to the circumstances surrounding him, he was precluded from making autopsic examinations. From the character of the symptoms, however, and the kind of treatment most successful, he infers that the principal lesion consisted in irritation of the mucous membrane of the alimentary canal, which, in protracted cases, ran into ulceration.

The treatment that proved most successful "was a modification of the physiological." General blood-letting was of doubtful value, and was employed with hesitation in consequence of the little disturbance of the sanguiferous system. Nevertheless the author's personal experience leads him to believe that in most cases where this remedy was omitted, local inflammation was apt to supervene, and that the course of the fever was more protracted. Mild purgatives were useful throughout the whole course of the disease. Emetics, though they produced their physiological effects promptly, did not exert any favorable influence on the malady. Ptisans, mucilaginous drinks, and the water of sub-acid fruits, were found serviceable in all stages. Indeed these, with laxatives, and stimulants in the latter stages (wine-whey proved the most useful), were the chief remedies employed.

"When the main force of the fever was subdued, it was generally a matter of much solicitude with the physician to see the approach of convalescence. His expectations, however sanguine, were doomed to disappointment. It was not uncommon for the fever in this stage, to remit. These remissions occupied the forenoon, lasting five or six hours. In the afternoon the exacerbations took place. These remissions and exacerbations were quotidian, and would sometimes last four or five weeks, to harass the patient and mortify the physician. Antiperiodics seemed to be somewhat indicated when the fever

assumed this form, but they answered no curative purpose at all. On the contrary, they aggravated the malady by increasing the exacerbation."

The author supposes this condition to have depended on morbid alterations in the alimentary canal; it was treated by "infusions of slippery-elm and gum-water."

The next meeting of the Convention, as was stated in our last, will be held on the 16th inst., in Cincinnati. We trust that it will be well attended. Associations of this kind are calculated to do a vast amount of good. The interchange of opinion which they invite, is essential to the improvement, if not to the very existence of our science; by it "time-honored" errors are corrected, new truths elicited, and a spirit of inquiry aroused. But they do more. They bring together individuals from various quarters of the country, and thus serve to break down those sectional prejudices and feelings which are the source of so much discord among medical men. They diffuse a spirit of emulation through the ranks of the profession, and thus elevate its character and dignity. They inspire sentiments of mutual respect and esteem among its members, and thus tend to soften the asperities that so often mark their intercourse. This consideration alone should lead us to regard them favorably; for it is painful to see men, whose daily avocations call into exercise the finer feelings of the heart, exhibit, as they frequently do, in their conduct towards each other, so much of the bitterness and gall that pertain to our fallen nature.

C.

Selections from American and Foreign Journals.

Anchylosis of the Lower Maxilla with the Temporal Bones. Dr. Payan, surgeon to the Hôtel Dieu at Aix, in a collection of facts on different diseases of the head, which he has just published, reports this remarkable case. It seems that the patent, 77 years of age, was attacked by the cholera morbus in 1835, and carried to the hospital, where he died in two days. It was observed upon his admission that he could not move the lower jaw, and that the tongue was protruded through an aperture formed by the loss of the four upper incisor teeth. His children and relations stated, that during his lifetime he had frequently told them that he had been unable to move his jaw from between four and five years of age, which he attributed to an accident he met with at that time, viz: the fall of a table upon his head, probably causing fracture of the maxilla near to the condyles. Upon dissection, complete ossification was found to have taken place with both temporal bones, and the union was so perfect, that no line of demarcation could be seen between them. All the teeth existed, with the exception of one or two molar, and the four upper incisors which had been extracted to admit the introduction of food. They were in close apposition with each other. The inferior incisors were pushed more forwards, and the molars more outwards, than in the natural state. In each parotid duct was found a calculus. No trace of fracture could be discovered in any part of the bone. There was no anchylosis of any other joint. This curious specimen has been frequently exhibited by M. Dubreuil to the medical students at Montpelier.

Cases of anchylosis of this articulation have been recorded before, but they have generally been found only when other joints had undergone the same process. An officer died at

Metz in 1803, who had long been affected with general rheumatism, brought on by fatigue during the war, in a cold and moist country. Upon dissection, every articulation was found anchylosed, and his skeleton, which is now in the museum of the Ecole de Médicine, forms in reality a single bone.—*Lond. and Edin. Monthly Jour. of Med. Sci.*, from *Gaz. Med. de Paris*, 28 Aug, 1841.

Extraction of Foreign Bodies from the Ear by Syringing with cold water.—Mr. Carpenter of Castlecomer has successfully employed injections of cold water for the removal of foreign bodies from the ear. "The first case," he observes, "brought to me, some years back, was one in which the foreign body was a garden pea, which, as is usual, was pushed in as far as the tympanum by the interference of the child's friends. The instrument I selected was a very small forceps with blunt points, with which I could catch the pea, but could not move it, and, on endeavoring to do so, caused intolerable pain. It immediately occurred to me to inject cold water with force, in order to at least displace the pea, and perhaps thereby render it more manageable—I did so with a two-ounce syringe, and found the pea so far displaced as to lie at the orifice of the meatus, whence I removed it without further trouble or pain to the child. Since that I have extracted many peas in the same way—in some instances they have lain at the orifice, and in others been forced out completely. So far I was satisfied that peas could be removed by the above method, and will admit that I felt anxious to have an opportunity of trying my hand on something of more difficult extraction. About six months back that offered—the substance was a pebble of a most irregular shape, and so large that I was surprised how the child could have borne to introduce it—the meatus was not inflamed; but the pebble was so far in, and so wedged in its place, that to touch it ever so lightly with any instrument, was almost enough to throw the child into convulsions. I almost despaired of succeeding with the syringe, but made the trial, and not having a two ounce one at hand, used a pint one—the first injection failed; but, while using a second, the pebble, much to my satisfaction, was forced out on the napkin held under.

In the last case brought to me I could hardly feel the foreign body with a silver probe, nor could the child's parents tell

me what it was; however, knowing it to be small, I used a small sized syringe, and by one injection had a grain of oats at the orifice of the meatus.—*Dublin Medical Press*, June 20th, 1841.

New variety of Hernia—Hernia destitute of Peritoneal Sac. By M. Dumeaux.—The following remarkable disposition of parts was observed in the body of a man between 55 and 60 years of of age, who had a large scrotal hernia on the right side. After removing all the coverings of the tumor, the hernial sac, or what appeared to be the sac, instead of being a uniformly resisting membrane, presented very distinct muscular fasciculi, and the posterior wall of the cæcum was immediately recognized. On examination by the abdomen it was found that the cæcum, instead of occupying the iliac fossa, was placed on the abdominal wall, and covered by peritoneum on one of its surfaces only. Its adherent wall was engaged in the inguinal canal forming part of the hernial tumor. The free wall, covered with peritoneum, followed, being as it were invaginated in the former, and forming towards the abdomen a cavity or true hernial sac, in which seven or eight inches of intestine were engaged.

This singular species of hernia has never before been described. The preparation was presented to the Anatomical Society.—*B. and F. Med. Rev.* Oct. 1841, from *Annales de Chirurg.* July, 1841.

Cure of Ozæna.—Dr. Detmold of Hanover says, that he has never failed to cure ordinary ozæna (by which he means the chronic coryza accompanied by a stinking discharge from the nose and a flabby relaxed state of the Schneiderian membrane) by the use of an injection composed of one or two drachms of chloride of lime rubbed up in a mortar with thirteen ounces of decoction of rhatany root, and strained off after standing for half an hour. About half an ounce of this must be injected into the nose three or four times a day with a syringe whose point is sufficiently long to carry the fluid high up into the nasal passages. The use of the remedy should be accompanied by the occasional administration of purgatives. It is very beneficial also in cases of chronic otitis with offensive discharge from the ear.—*Ibid*, from *Holscher's Annalen*, B. 1804.

Regeneration and Union of Nerves.—By MM. Gunther and Schon. The following observations were made on rabbits, about fifty of which were operated on, sometimes by cutting across the ischiatic nerves, at other times by removing a portion varying from two to four lines in length. These physiologists describe the elementary fibres of the nerves as transparent cylinders with double tunics, filled with a fluid resembling liquid albumen. After maceration in water, or after death, this fluids coagulates and produces the turbid granular aspect which till now, has been considered its natural appearance. When the two extremities of a nerve which has been cut across become united, the nerve propagates impression through the uniting medium. This is done by means of true primary fibres having been formed through the uniting medium, and the following is the mode in which MM. Gunther and Schon have observed this to take place. After division of the nerve the two ends retract somewhat, the diameter of the neurilema becomes diminished, and the medullary substance is pushed out in a globular form; exudation of plastic lymph then occurs and fills the wound, and the cut extremities of the nerve become swollen, the upper extremity more than the latter. This tumefaction of the nerve itself, is owing to the presence of plastic lymph effused into the cellular tissue and also between the neurilema and primitive fibres.

The matter which unites the two ends of the nerve is at first amorphous, but by degrees primitive fibres shoot through the mass, and become visible at the earliest on the eighth week after the division. These new fibres are in every respect similar to the original fibres; but the granular exudation and the cellular tissue which surround and envelope them render them difficult of examination. These fibres are not parallel, but exhibit a confused arrangement.

With the regeneration of the fibres of the nerve returns the sensibility and mobility of the limb or organs to which the nerve was distributed.

But in general the function of the part is not so free as before the division:—the animals not being able to use the limb whose nerve had been divided so freely as the other. The influence of the will over the limb was also observed to be diminished. MM. Gunther and Schon account for this on the supposition which is borne out by their experiments, that the number of fibres which are regenerated is not equal to those which originally existed; besides, it appeared to them that the regenerated fibres occasionally united the ends of differ-

ent primitive fibres, so that the sensation was not always referred to its proper place. They consider that the regeneration or growth of the uniting fibre commenced at the superior extremity of the divided nerve, but concede that it is possible that it may also take place from the lower extremity.—*Ed. Med. & Surg. Journ.* Jan. 1842, from *Archives Generales*, March, 1841.

Experimental Researches on the Function of the Skin in Man and Animals.—M. Duchos, in a very experimental paper, shows that a coating of gum-lac put on the skins of animals, causes them to die in a longer or shorter time, by producing convulsive movements similar to epilepsy. When the animals, coated with gum-lac, were subjected to electricity, they died in a much shorter time. He next tried the effect of metallic coverings, as he entertained the notion that, because they had opposite electrical properties, the animals coated with them would die with symptoms of an opposite nature. He therefore cut off the hair from some animals and covered them with thin plates of tin (tin-foil), and found that they perished with symptoms of debilty, the reverse of what he had noticed when the coating consisted of a resinous substance. When the tin was covered with a coating of gum-lac, the animals perished still more rapidly. He then placed under the influence of electricity some of the animals covered with plates of tin, and found that, so long as they remained connected with the electrical current, their vigor appeared to be restored, but that, whenever it was arrested they appeared ready to perish.

The object of these experiments was to ascertain what would be the likely effect of such coverings in certain diseased states of the human frame, and especially in nervous or neuralgic affections, and in rheumatism. He reasoned, that, if metallic coverings deprived animals of life by producing rapid sinking of the vital powers, the same metallic plates applied to the human body would cure or remove those diseases which seemed to depend on an excess of organic life. On putting his plan to the test of practice, he was so fortunate as to find that it removed some nervous, and a few acute and chronic rheumatic affections.

This plan of treatment was of no avail in any case where the disease was dependent on or connected with organic le-

sions, or attended with fever, or swelling of the part, or with general weakness; on the contrary, in all these cases the metallic plates augmented the disorder.—*Edinburg Med. and Surg. Jour.* Jan. 1842, from *Comptes Rendus*, 20th Sept. 1841.

"*On Fibre.*" By MARTIN BARRY, M. D., F. R. SS. Lond. and Edin.—[At meetings of the Royal Society of London, on Dec. 16, 1841, and Jan. 6, 1842, a paper 'On Fibre' was read by Dr. Martin Barry, of which we present our readers with the following analysis:—*Ed. N. Y. Lancet.*]

The author observes, that, in the mature blood corpuscle, there is often seen a flat filament, already formed within the corpuscle. In mammalia, including man, this filament is frequently annular: sometimes the ring is divided at a certain part, and sometimes one extremity overlaps the other. This is still more the case in birds, amphibia, and fishes, in which the filament is of such length as to constitute a coil. This filament is formed of the discs contained within the blood-corpuscle. In mammals, the discs entering into its formation are so few as to form a single ring; and hence the biconcave form of the corpuscle in this class, and the frequent annular form of the filament it produces. In the other vertebrata, the discs contained within the blood-corpuscles are too numerous for a single ring, and they consequently form a coil. At the outer part of this coil, the filament, already stated to be flat, often presents its edge; whence there arises a greater thickness of the corpuscle, and an appearance of being cut off abruptly at this part; while in the centre there is generally found the unappropriated portion of a nucleus; and hence the central eminence, surrounded by a depression, in those corpuscles which, from the above-mentioned cause, have the edge thickened. The nucleus of the blood-corpuscle in some instances resembles a ball of twine; being actually composed, at its outer part, of a coiled filament. In such of the invertebrata as the author has examined, the blood-corpuscle is likewise seen passing into a coil.

The filament thus formed within the blood-corpuscle, has a remarkable structure; for it is not only flat, but deeply grooved on both surfaces, and consequently thinner in the middle than at the edges, which are rounded; so that the filament, when seen edgewise, appears at first sight to consist of segments. The line separating the apparent segments from one another is, however, not directly transverse, but oblique.

Portions of the clot in blood sometimes consist of filaments having a structure identical with that of the filament formed within the blood-corpuscle. The ring formed in the blood-corpuscle of man, and the coil formed in that of birds and reptiles, have been seen by the author unwinding themselves into the straight and often parallel filaments of the clot; changes which may also be seen occurring in blood placed under the microscope before its coagulation; and similar coils may be perceived scattered over the field of view, the coils here also appearing to be altered blood-corpuscles, in the act of unwinding themselves; filaments, having the same structure as the foregoing, are to be met with apparently in every tissue of the body. The author enumerates a great variety of organs in which he has observed the same kind of filaments.

Among vegetable structures, he subjected to microscopic examination the root, stem, leaf-stalk, and leaf, besides the several parts of the flower: and in no instance of phanerogamous plants, where a fibrous tissue exists, did he fail to find filaments of the same kind. On subsequently examining portions indiscriminately taken from ferns, mosses, fungi, lichens, and several of the marine algæ, he met with an equally general distribution of the same kind of filaments. The flat filament seen by the author in all these structures, of both animals and plants, he states to be that usually denominated a *fibre*. Its appearance is precisely such as that of the filament formed within the corpuscle of the blood. It is known, he remarks, that discoid corpuscles circulate in plants; and it remains to be seen whether or not filaments are formed also in these.

By gradually tracing the fibre or filament above-mentioned into similar objects of larger size, the author endeavors to show that it is not possible to draw a line of separation between the minutest filament, and an object being to all appearance composed of two spirals running in opposite directions, and interlacing at certain regular intervals; an arrangement which produces in the entire object a flattened form, and gives it a grooved appearance. It is, in fact, the structure which, for want of a better term, he has called a *flat filament*. The edge of this filament presents what, at first sight, seem like segments, but which, in reality, are the consecutive curves of a spiral thread. A transverse section of such an object is rudely represented by the figure 8. This is also precisely the appearance presented by the minutest filament, generally termed *Fibre;* and the author particularly refers to the oblique direction of the line separating the apparent seg-

ments into the smaller filament, in connection with the oblique direction of the spaces between the curves of the spiral threads in the larger one.

The spiral form, which has heretofore seemed wanting, or nearly so, in animal tissues, is then shown to be as general in animals as in plants. Nervous tissue, muscle, minute blood-vessels, and the crystalline lens, afford instances in proof of this. And if the author's view of identity in structure between the larger and the smaller filaments, be correct, it follows that spirals are much more general in plants themselves than has hitherto been supposed; spirals would thus appear, in fact, to be as universal as a fibrous structure.

The tendency to the spiral form manifests itself very early. Of this the most important instance is afforded by the corpuscle of the blood, as above described. The author has also obtained an interesting proof of it in cartilage from the ear of a rabbit; where the nucleus, lying loose in its cell, resembled a ball of twine, being composed, at its outer part, of a coiled filament, which it was giving off to weave the cell-wall;—this cell-wall being no other than the last-formed portion of what is termed the intercellular substance—the essential part of cartilage. The nuclei in cartilage, as well as those in other tissues, there is ground for believing to be descended, by fissiparous generation, from the nuclei of blood-corpuscles.

The author then describes the mode of origin of the flat filament or fibre, and its reproduction in various animal and vegetable tissues, which he enumerates. He conceives that each filament is a compound body which enlarges, and, from analogy, may contain the elements of future structures, formed by division and subdivision, to which no limits can be assigned.

He then traces the formation of muscle out of cells, which, according to his observations, are derived from corpuscles of the blood, to the state where there exists what is denominated the *fibril*. In this process there are to be observed the formation of a second order of tubes within the original tube; a peculiarly regular arrangement of discs within these second tubes; the formation, first of rings and then of spirals, out of discs so arranged; the interlacing of the spirals; and the origin, in the space circumscribed by these, of spirals having a minuter size; which in their turn surround others still more minute; and so on. The outer spirals enter for the most part into the formation of the investing membrane discovered by Schwann, but for the only complete description, in a formed state, we are indebted to Mr. Bowman. The inner spirals

constitute what are denominated the *fibrillæ*. The fibril appears to the author to be no other than a state of the object which he designates a *flat filament;* and which, as he shows, is a compound structure. The fibril he finds to be, not round and beaded, as it has been supposed, but a flat and grooved filament; the description above given of the structure of the filament being especially applicable here. This flat filament is so situated in the fasciculus of voluntary muscle, as to present its edge to the observer. It seems to have been the appearance presented by the edge of this filament, that is to say, by the curves of a spiral thread, that suggested the idea of longitudinal bead-like enlargements of the fibril, as producing striæ in the fasciculus of ordinary muscle. In the author's opinion, the dark longitudinal striæ are spaces (probably occupied by a lubricating fluid) between the edges of flat filaments, each filament being composed of two spiral threads, and the dark transverse striæ, rows of spaces between the curves of these spiral threads. The filament now mentioned, or its edge, seems to correspond to the *primitive marked thread* or *cylinder* of Fontana—to the *primitive fibre* of Valentin and Schwann—to the *marked filament* of Skey—to the *elementary fibre* of Mandl—to the *beaded fibril* of Schwann, Müller, Lauth, and Bowman—and to the *granular fibre* of Gerber. The changes known to be produced by the alternate shortening and lengthening of a single spiral are exhibited in the microscope by a fasciculus of spirals, not only in its length and thickness, but in the width of the spaces (*striæ*) between the curves of the spirals. And a muscle being no other than a vast bundle of spirals, it is in contraction short and thick, while in relaxation it is long and thin; and thus there occurs no flattening of bead-like segments in contraction. The author has found no segments that could undergo this change. These observations on the form of the ultimate threads in voluntary muscle, were first made on the larva of a Batrachian reptile, and have been confirmed by an examination of this structure in each class of vertebrated animals, as well as in the crustacea, mollusca, annelida, and insects.

He finds that the toothed fibre, discovered by Sir David Brewster in the crystalline lens, is formed out of an enlarged filament; the projecting portions of the spiral threads in the filament, that is, the apparent segments, becoming the teeth of that fibre.

The compound filaments are seen with peculiar distinctness in the blood-vessels of the arachnoid membrane. In connection with the spiral direction of the outer filament in these vessels, the author refers to the rouleaux in which the red

blood-discs are seen to arrange themselves, in the microscope, as probably indicating a tendency to produce spiral filaments. To form rouleaux, corpuscle joins itself to corpuscle, that is to say, ring to ring; and rings pass into coils. The union of such coils, end to end, would form a spiral. But the formation by the blood-corpuscles of these rouleaux is interesting in connection with some facts recorded by the author in a former memoir; namely, that many structures, including blood-vessels, have their origin in rows of cells derived from corpuscles of the blood. The human spermatozoon presented a disc with a pellucid depression, each of the two sides of the peripheral portion of which was extended into a thread; these two threads forming, by being twisted, the part usually designated as the tail. The occurrence of two tails, observed by Wagner, is accounted for by the author by the untwisting of these threads.

The author has noticed very curious resemblances in mould, arising from the decay of organic matter, to early stages in the formation of the most elaborate animal tissues, more particularly nerve and muscle. Flax has afforded satisfactory evidence of identity, not only in structure, but in the mode of reproduction, between animal and vegetable fibre.

Valentin had previously stated that in plants all secondary deposits take place in spiral lines. In the internal structure of animals, spirals have heretofore seemed to be wanting, or very nearly so. Should the facts recorded in this memoir, however, be established by the researches of other investigators, the author thinks the question in future may perhaps be, where is the 'secondary deposit' in animal structure, which is not connected with the spiral form? The spiral in animals, as he conceives he has shown, is in strictness not a secondary formation, but the most primary of all; and the question now is, whether it is not precisely so in plants.

In a postscript the author observes, that there are states of voluntary muscle in which the longitudinal filaments ('fibrillæ') have no concern in the production of the transverse striæ; these striæ being occasioned by the windings of spirals, within which very minute bundles of longitudinal filaments are contained and have their origin. The spirals are interlaced. When mature, they are flat and grooved filaments, having the compound structure above described. With the shortening of the longitudinal filaments ('fibrillæ') in muscular contraction, the surrounding spirals, and of course the striæ, become elongated and narrow; while in relaxation these changes are reversed.*

[* We learn that the author has successfully demonstrated to Professor Owen and others, since the reading of the above paper, the facts described in it.—Ed. L.]

Fatal Hæmorrhage from the Extraction of a Tooth. By W. A. Roberts, Esq., Edinburgh.—Mr. C. P., of middle age, rather full-sized body, called upon me on Sunday, the 19th of December, 1841, requesting to have a tooth removed, that had given some uneasiness for a length of time; upon examination, I found the dens sapientiæ of the right side of the lower jaw loose, the crown gone, and removed it without difficulty with a pair of forceps generally used for extracting the temporary teeth of children. It had three small fangs, the anterior one being the longest; the hæmorrhage, nothing more than usual, had ceased ere he left, the alveolus being plugged with lint, wetted with the camphorated spirit of wine. At half past four of the same day, Mr. P. called again, the blood running in a continuous stream, evidently from the anterior alveolus—cleaned it out from the bottom, and filled it up firmly with a strip of lint, pressed down with a curved instrument; when full, applied a compress of cork, fitted to the part and pressed upon firmly by the dens sapientiæ of the upper jaw; likewise securely bandaged the jaw. Ordered astringent lotions, for the hæmorrhage was again checked, the saliva coming away unstained.

At this visit the patient informed me that he had a tooth taken out a few years ago, which was followed by copious hæmorrhage for nearly three days, but was checked by the application of caustic; also that lately his gums had bled to a considerable extent, and for a fortnight at a time. Of all this I was unfortunately ignorant until after three hours had elapsed from the removal of the root. There was nothing indicating any hæmorrhagic tendency at the time I saw him first, and, being a stranger to me, I was consequently not acquainted with the history of his habit of body.

I was sent for early on Monday morning, and found the hæmorrhage had continued without intermission during the night. He had deferred sending for me, unfortunately, as I had requested, supposing the bleeding would stop of itself. I found no coagulum about the mouth, or in what he had spat out, as in ordinary hæmorrhage, the alveolus being as clear as when the stump was first taken away. I put a piece of lunar caustic, the size of a pin's head, into the bleeding alveolus, pressed it down, and plugged with sponge tent and bandaged as formerly. The bleeding was again stopped. Styptics, lotions of kino, and alum, were used with benefit.

For more than an hour after this all appeared safe. In the course of the day, Dr. Hay, of Queen street, the family medical attendant, saw him, and found the hæmorrhage as bad as

ever. Applied various styptics without doing much good. On the 21st, Dr. Hay applied the actual cautery without benefit, attributing this circumstance to the instrument used, the first thing at hand being too thick at the point. I followed up Dr. Hay's suggestion, and used an iron better adapted to reach the bleeding vessel, but with no good result. During the operation the patient started, by which the under lip was slightly burnt. And here I may mention the blood continued to flow from the lip pretty freely for several days.

Our success until the 23d was various, and on that day, if anything, the hæmorrhage was worse, and accompanied by alarming symptoms, with weak pulse, giddiness, &c. I had serious thoughts it would be necessary to take up the carotid. Towards evening an improvement took place, the bleeding being once more under command by pressure, &c. Mild purgatives ordered, in consequence of a considerable quantity of blood having been swallowed.

At 2 A. M., of the following morning, I was sent for, as the patient had sunk to an alarming degree. Dr. Hay and myself attended immediately; we found him recovering from a fainting fit. Wine given, &c. He rallied; and upon examination found there was now no active hæmorrhage from the original source; nor was there any afterwards. In the course of the day Mr. Nasmyth, of George street, saw the case, which was going on favorably, with the exception of a tolerably smart oozing from the gums, and slight bleeding from the left nostril, which commenced after the hæmorrhage from the alveolus had become less active. Upon the removal of the bandages the face was found much discolored and swollen from the effusion of blood into the cellular tissue, giving all the appearance of the result of a blow. Pulse good; countenance less anxious; getting a quiet sleep occasionally; the sloughs drying up under the use of the camphorated spirit, and latterly of turpentine, with no increase of hæmorrhage. Mild aperients given; a little wine, and the use of tonics: up to the 27th, upon the whole, continuing to improve. The oozing from the gums and nostril being occasionally troublesome, a strong solution of the nitrate of silver was painted over them with advantage. At this stage Dr. Hay and Mr. Nasmyth considered it unnecessary to continue our meetings as we had done, but to see him occasionally, Dr. Hay taking charge of the case, the patient remaining much in the same state until the 7th of January, 1842.

I had not seen the case for two days, when Dr. Hay informed me that a change for the worse had taken place—all the old

symptoms, aggravated by a severe pain all over the mouth and head. Mr. Nasmyth and myself saw the patient on Sunday, the 9th, the third from the removal of the tooth, and found him much reduced; the gums turgid to a remarkable degree, and of a deep purple color, almost covering the teeth, and bleeding freely; the blood was again oozing from the alveolus, and slightly from the nostril; the features collapsed; complained of blindness; and all the symptoms of the disease "purpura hæmorrhagica" more decided. Mr. Nasmyth employed a solution of the proto-nitrate of mercury to the gums, which only checked the hæmorrhage for a short time. Wine (claret) given freely, stimulants, tonics, &c.

On Sunday, the 9th, Dr. Abercromby was consulted; but although all was done that such eminent men would be expected to do, death put an end to this painfully-interesting case on the Tuesday following, being three weeks and two days in duration.

In the course of my practice I have met with several cases of severe hæmorrhage following the extraction of a tooth, but have always succeeded, with the exception of the above case, in arresting it by pressure. In one case in particular the hæmorrhage was alarming. Upon examining the mouth, I discovered a portion of the alveolar process that had been splintered; upon removing this and the clot which nearly filled the mouth, and, in fact, was acting as a poultice, and washing out the bleeding alveolus with warm water, I cut a small piece of sponge tent nearly to the size of the cavity, and pressed it firmly down with lint; over that a compress of cork, and all securely bandaged, with complete success. The heat of the mouth softens wax; but sponge expands, and being confined, must of necessity press upon the mouth of the bleeding vessel. I have occasionally tried replacing the tooth with lint wrapped round the fangs, but never could depend upon it, but should think it would answer well with any of the single-rooted teeth, or bicuspids: I never had occasion to try it in any of these teeth. In passing I may remark, that in all the cases that have come under my notice, I never saw the application of the actual cautery of much service; still in extreme cases we are bound to employ it.—*Boston Med. and Surg. Journal*, from the *London Lancet*.

The Structure of the Human Placenta. By JOHN DALRYMPLE, Esq., Assistant Surgeon to the London Ophthalmic Infirmary.—[In the early part of last year, Mr. D., having

pursued some anatomical investigations of the structure of the human placenta at the term, and having made several drawings of the injected capillaries of the tuft, afterwards had an opportunity of seeing the copies of Weber's drawings, given in the Icones Physiologicæ of Wagner, and transferred to the pages of Dr. Willis's translation of the latter author's Physiology.

The resemblance of the present drawings to those given by Dr. Willis was so striking as to go far, of itself, to prove the correctness of both draughtsmen, and to corroborate the views entertained by Weber of the anatomical conditions of the organ. They differ, also, from the engravings of Dr. Reid (given in the January number of the Edinburgh Medical and Surgical Journal for 1841), inasmuch as no where could be seen an artery and vein running side by side, forming an apparent single vessel, though with a double tube, and terminating abruptly in blunt extremities, where the anastomoses took place between them.

The following are the results of Mr. D's. researches and examinations as given in a recent number of the London Medical Gazette:—]

1. That the placenta was made up of innumerable subdivisions of the umbilical vessels, terminating in beautiful coils and convoluted capillaries, which formed tufts or bouquets of vessels clothed by a prolongation of the endo-chorion derived from the fœtal surface of the organ.

2. That nowhere did a division of an umbilical artery terminate otherwise than in a branch of the umbilical vein; and each branch, as well as tuft of vessels, was covered by a prolongation of the before named membrane.

3. That each tuft was, in fact, a real villus; the endo-chorion being covered externally with an epithelium-like tissue, having nucleated cells and corpuscles.

4. The uterine surface of the placenta is covered by the decidua which does not appear to enter further into the structure of the organ than between the lobules; and the depth to which it thus penetrates varies with the depth of the fissures.

5. That fibrous bands stretch from the fœtal to the placental surface of the organ, giving firmness and support to the vessels.

6. That there are no defined cells in the placenta, but that the nutrient fluids of the mother are poured into the interstices of the tufts, which are not bound or connected together by a common cellular tissue.

7. That on the decidual surface of the placenta are thinly

scattered, here and there, blunt conical papillæ, about a line and a half in length, made up of innumerable coiled and contorted capillaries. Query.—Are these the analogues of the fœtal cotyledons of the ruminant?

From these observations, which were given in a minute detail, the author has attempted to simplify the functions of the human placenta.

He observes, that in the incubated egg, in consequence of the non-connexion between the embryo and parent, a nutrient and a respiratory organ is indispensable, and hence the more complicated system of vessels. That in the oviparous vertebrata, the vitellary sac, aud the omphalo-mesenteric vessels represent the placenta of mammalia, which is the absorbent organ of the fœtus. But while in the one case the nutrient materials of the mother,already aerated by her lungs, are conveyed by the uterine arteries for absorption and nutrition of the embryo, in the other the materials of the blood are absorbed by the folds of the vitelline sac, and conveyed through the circulation of the young bird, requiring, however, contact with oxygen for a second circulation: hence a new membrane, or one that is persistent up to the time of independent respiration, viz: the allantois; and hence, also, the more complicated system of its vessels. The allantois, as a respiratory membrane, exists only as a rudimentary organ in mammalia, and the function of the placenta being solely that of nutrition by already oxygenized materials, the cord contains only a simple system of incurrent and excurrent vessels.

Supposed Polypus Nasi.—A young woman entered the Hospital of Clermont, under M. Fleury, to be operated on for polypus of the nasal fossæ, of which affection she had all the symptoms. At about 12 millimetres within each nostril, appeared a round whitish tumor which blocked up the passage. A stylet passed along the septum narium, penetrated easily into the nostril, but upon the external side of the nostril it was arrested by the pedicle of the tumor. An attempt was made to remove it in the ordinary way by the polypus forceps, but without success, and at each trial the patient complained of pain extending all over the head. Examining the tumor anew, the surgeon found that the excrescence taken for a polypus was only a prolongation of the pituitary membrane, which was folded over and thus reached the septum. It was the fold

of membrane which in the normal state passes from the inferior turbinated bone, which from some unknown cause had become hypertrophied. The part was removed by a single cut of the curved scissors.

A similar case occurred at Hotel Dieu, under Dupuytren, in 1833. A M. Huckster presented herself with a red fungous tumor, projecting from the left nostril, and having the appearance of a polypus. Finding the base very large, some doubt was entertained as to the nature of this tumor. By the use of topical astringents the size was so much diminished that it was easy to see that the tumor was only a swelling of the mucous membrane lining the septum narium. Dupuytren insisted very strongly at his Clinique on the error of diagnosis to which such a case might give rise.—*N. Y. Med. Gaz.*

Quinine in Asthma. By B. R. Hogan, U. S. A.—The value and importance of *quinine* in all paroxysmal and congestive diseases, have secured for it a high place in our catalogue of therapeutic agents. In the latter condition of any of the important organs, it is the safest and most efficacious agent in the materia medica. From its happy influence in relieving congestion, in our autumnal fevers, I was, *à priori*, induced to administer it in asthma. In every instance in which I have given it, or known it to be administered, the complete relief of the *dyspnœa*, and termination of the paroxysm, have succeeded in an hour. Subsequent attacks have been warded off. The paroxysm is as *tractable* to the influence of quinine as the slightest quotidian.

In the forming stage of croup, two grains of quinine, and a snuff plaster to the breast of a child two years old, parried the attack.

My friend, John A. English, M. D., of Cohaba, Ala., has used it with complete success, in a long-standing case of asthma, which had resisted the usual remedies. Four grains of quinine "operated like a charm," and relieved the patient in thirty minutes.

I communicate to you this important effect of quinine, in order that the profession may scrutinize the high claim I set up for it, and, by further experience, direct in what cases it may be most beneficially administered in one of the most distressing and intractable diseases "which flesh is heir to." From two to eight grains of the sulph. quinine, at a dose, to be repeated in an hour if not relieved.—*Am. Med. Intell.*

On the Sounds of the Heart. By M. Cruveilhier.—From his recent investigations on this subject, M. Cruveilher is led to infer, contrary to the general belief, and certainly in opposition to our own researches, that both sounds of the heart are seated at the origin of the pulmonary artery and the aorta, and that they are owing to the clacking of the semilunar valves:—that the first sound which coincides with the systole of the ventricles. and the dilatation of the arteries, is the result of the elevation of the semilunar valves which had been previously depressed,—and that the second, which coincides with the dilatation of the ventricles and the contraction of the arteries, is owing to the depression of the semilunar valves by the refluent blood.

The subject of the sounds of the heart is ably discussed in the work of Dr. Hope, commenced in this number of the "Library," which contains, in addition to the experiments of European observers, those of the able and estimable American Editor, Dr. Pennock.—*Am. Med. Library and Intell.*

Nitrate of Silver and Ipecacuanha in Diarrhœa and Dysentery.—Prof. Trousseau, of the Necker Hospital, has employed this combination in both the acute and chronic forms of these two diseases, and with great success. In a late number of the *Journal des Connaissances Medico-Chirurgicales* we find a report of several of the cases. In cases of dysentery an emetic of ipecacuanha was first given, and then an enema containing 25 centigrammes (5 *grains*) of nitrate of silver in 20 ounces of water. The dysentery was often checked by a single enema, but the treatment was generally continued for four or five days. It was equally useful, according to Prof. Trousseau, whether the disease occupied the colon or the ilium, only in the latter case, instead of enemata the medicine was given in pill—the dose 2½ centigrammes (½ *grain*) to an adult. To a child with chronic diarrhœa, 1–5th grain was given by the mouth, or a grain in enema.—*N. Y. Med. Gaz.*

Rectifications in the Practice of Auscultation and Percussion. By Dr. Joseph Skoda, Teacher of Practical Medicine in the Hospital of Vienna.—The following observations on auscultation, extracted from the lectures of Dr. Skoda, of Vienna, by Dr. Drysdale and Dr. Russell, will be interest-

ing to the English reader; as they place in a new light many facts which we have been accustomed to view differently. They have, moreover, been revised by Dr. Sk›da himself.

All will acknowledge, that as the voice is produced in the larynx, it must invariably be transmitted thence to the different parts of the chest; and at first sight it would appear that the common opinion entertained by the profession is correct, namely, that its greater or less distinctness is owing to the good or bad conducting power of the parts lying between the larynx and the parietes of the chest. The correctness of this opinion, however, is very doubtful. For example, in pneumonia, when there is hepatization of the lung, the voice is sometimes distinct, and at other times very indistinct, while percussion shows that no particular change has taken place.

The cause of the occasional disappearance of the resonance of the voice is the obstruction by fluid matter of the bronchial tubes of the hepatized portion of the lung; for the resonance reappears readily when the patient makes a deep inspiration or coughs. This disappearance and return of the resonance, while in other essential particulars the hepatization remains the same, does not accord with the commonly assigned cause; for, according to it, it would be a matter of indifference whether the bronchial tubes contained air or not. In pleuritic effusion into the cavity of the chest, the intensity of the resonance of the voice diminishes as the quantity of the exudation increases; while the contrary should happen if the increased distinctness of the voice at any stage of the effusion depended on the superior conducting power of the interposed fluid.

The question of the superiority in conducting power of dense over rare bodies, has been too much regarded as an abstract law, without paying sufficient attention to the particular circumstances which may modify or prevent its operation. It is quite true that dense bodies conduct the sound more readily than rare ones, but only if the sound be confined to the medium in which it is formed, for it passes with difficulty from one medium to another. For example, the slightest scratching at the end of a long pole is heard distinctly when the other end is placed in contact with the ear, while, if this be not done, (*i. e.* if the sound be transmitted by the air), nothing at all is heard. The striking together of two stones under water, when the head is immersed, is distinctly heard, while no sound is audible when it is taken out. On the other hand the human voice, which is formed in the air, is heard furthest in that medium. When the head is dipped into water, sounds

produced in the air are heard very faintly or not at all; and solid substances, as a board or a wall, interrupt sounds more or less completely. The laws of physics teach us further, that sound is more or less reflected in its transmission from a rare medium to a denser one, and that the new medium takes up less than would have been propagated in the same space had it remained in the medium by which it had been till then transmitted; and the less sound is taken up by the new medium, the greater the difference of consistence and coherence between the two media. The reason why enclosed passages and tubes, whose walls are of solid materials, conduct sounds better than the open air is, because they reflect the vibrations which are thus confined to a small space, and prevented from being dispersed and lost in the surrounding air. If the walls of the tube were instrumental in conducting the sound, it is singular that a hollow tube should be used as a stethoscope, and not a solid cylinder of wood or metal. The voice, therefore, reaches the parenchyma of the lungs, not through the solid parts, but through the air in the trachea and bronchia, and ought to be carried further in the healthy lung, in which the air penetrates, into the air-cells, than in the hepatized lung, where the air-cells and smaller bronchia are obliterated. These vibrations, likewise, should pass more easily from the ear into the light tissue of the healthy lung than to the condensed parenchyma of the hepatized one, according to the law explained above.

A consideration of these facts would be almost sufficient in themselves to prevent us from acquiescing in the ordinary opinion, that the reason of the voice being louder when the lung is hepatized, than when it is sound and spongy, depends upon its being better conducted by the tissue of the lung when dense than when in its natural condition. Moreover, Dr. Skoda has set this matter to rest by the following simple experiment, which he usually performs in the presence of his class, and which any one may easily repeat.

If the ear be applied to a stethoscope placed successively on corresponding parts of a sound and then of a hepatized lung removed from the body, the voice of another person who speaks through a stethoscope placed upon the lung at an equal distance in both cases, will be heard somewhat more distinctly in the sound than in the hepatized lung; but the distinction is so insignificant, that, were the reverse the case, it would not account for the very marked difference in such a condition of the lungs in the living subject.

Consonance is a term adopted by Dr. Skoda to express a

well known phenomenon; and it may be here properly explained.

A tense guitar string sounds in unison with a note produced in its vicinity, either by another musical instrument or by the voice. A tuning fork held in the air emits a much weaker sound than when placed upon a table or chest. The table or chest must increase the intensity of the sound by assuming the same vibrations as the tuning fork, or, in other words, by consonating with it. The note of a Jew's harp is scarcely perceptible when it is struck in the air, and it is heard much more distinctly when played in the mouth. Thus the air in the mouth must increase the sound of the Jew's harp, *i. e.* must consonate with it.

It sometimes happens that the voice is heard more strongly at the thorax than at the laynx, which in itself is sufficient to show that its strength is increased by means of consonance within the chest. The different degrees of the intensity of the voice heard at the thorax, may be explained by the different strength of the consonance within the chest. To ascertain these changes we must disover what it is within the chest that consonates with the voice, and by what circumstances the consonance is liable to be altered.

The voice, as it issues from the mouth, is composed of the sound formed at the larynx, and the consonating sounds produced at the pharynx, mouth, and nasal cavities. This is shown by the alteration the voice undergoes by the opening and shutting of the nostrils and mouth, while there is no change made in the larynx. The pitch of the voice is evidently fixed by the larynx alone, and the opening and shutting of the nostrils and mouth has no influence upon it; the articulation of the voice, however, and its timbre, depend upon the mouth and nostrils.

As it is certain that the air in the pharynx, mouth and nostrils, consonates with the sound formed in the larynx, there can be no doubt that the air in the trachea and bronchiæ may also be thrown into consonant vibrations with the sounds formed at the larynx. Hence it is the air in the chest, and not the parenchyma of the lungs, which consonates with the voice at the larynx, as the latter seems ill adapted for consonating, being neither stiff nor sufficiently tense. Those substances, such as air, tense strings, membranes, slips of wood, and tin plates, in which a musical sound is most readily produced, are most easily thrown into consonant vibrations.

Air can consonate only when confined within a circumscribed space. In the open air the human voice, and every

other sound, is heard more feebly than in a room. The air confined within the box of a guitar, violin, piano, &c., consonates with the note struck on the strings, while the sound is not increased by the consonance of the external air. The strength of the consonance depends upon the size and form of the space in which the air is confined, and upon the properties of the walls which bound the space. It appears that the consonating sound of the inclosed air will be stronger the more perfectly the walls reflect the sounds which spread through the air. A space surrounded by solid walls produces the greatest consonance, while in a linen tent the sound is but little increased. The cause of the strengthening of sounds by the speaking trumpet is well known.

The deductions drawn from the physical principles just referred to may be used in explaining the consonance of the voice in the chest. The air in the trachea and bronchia can consonate with the voice in as far as their walls resemble the walls of the larynx, mouth, and nasal cavities, in their power of reflecting sound. In the trachea, the walls of which consist of cartilage, the voice consonates almost as strongly as it sounds in the larynx. In the two branches also into which the trachea divides the consonance must be nearly as perfect. On the entrance of the bronchia into the parenchyma of the lung they have no longer cartilaginous rings, but merely thin irregular plates of cartilage interspersed in the fibrous tissue. As the bronchia ramify, these plants become smaller, thinner, and less numerous, and at last disappear altogether, and the finest twigs of the bronchia consist merely of membranous canals. In the normal state of the parenchyma of the lung the air in the bronchia consonates less strongly with the voice than that in the trachea, in proportion to the smaller number of cartilages they contain. The conditions which increase the consonance of the voice in the air contained within the bronchia that ramify in the parenchyma of the lung are either that the walls of the bronchia have become cartilaginous, or if still membranous, very thick, or that the surrounding tissue of the lungs has become devoid of air;—in all these conditions the walls reflect the sound more strongly than the membranous walls of the normal bronchia;—and there must be no interruption of continuity between the air in the bronchia and that in the larynx. If the air in a confined space be thrown into either original or imported autophonous vibrations, which give rise to sound, the surrounding walls not unfrequently partake of the same vibrations, and they do this the more readily the less stiff and hard they are.

In this respect a portion of the small intestine represents pretty well the more membranous parts of the bronchia, and a portion of the heart and liver the hepatized lung. If a person speaks through a stethoscope placed on one end of a moderately inflated small intestine, consonant vibrations of the voice, in the air within the intestine, may be heard by another person listening through a stethoscope placed on the other end of the intestine. If a layer of solid or fluid substance be interposed between the mouth of the stethoscope and the intestine, as, for example, a piece of liver or of intestine filled with water, the sound is heard very indistinctly, and not at all if the thickness of the interposed substance reaches half an inch.

If a passage be bored in the liver, so as not completely to pierce it through, and this be spoken into by means of a stethoscope accurately fitted into the entrance of it, the voice may be heard along the whole length of the passage, and for a considerable distance on each side, through a stethoscope placed over it, so strong, that it by far exceeds in intensity the voice proceeding from the mouth of the speaker, which is by the free air.—*Braithwaite's Retrospect, No.* 4, and *Edinburgh Med. and Surg. Journ.* July, 1841.

Ioduret of Sulphur in Porrigo.—Dr. Wm. Davidson states that he has found no remedy so efficacious in the treatment of porrigo, as the ioduret of sulphur, having repeatedly succeeded in curing the patient permanently with it after a long and fruitless trial with other remedies. His method of treatment is the following:

The head is first well washed with soap and water, the hair is then cut as short as possible with scissors, a poultice is applied, and continued for a day or two if necessary, to soften the crusts, which being removed as thoroughly as possible, the hair is closely shaved. In general, the ointment is not applied until the head has been shaved, but if pediculi be present, it is employed from the commencement, in order speedily to extinguish these vermin. The proportion of ioduret of sulphur employed has varied from 20 to 40 grains to one ounce of axunge; but, in general, the latter quantity may be safely used from the beginning, unless there be some unusual inflammatory action present; for it seldom excites any particular pain or irritation. As a general rule, tho daily applica-

tion of the ointment will be sufficient, but in some cases, it is advisable to use it twice a day in order to facilitate the cure.

Alteratives, or any particular internal treatment, have rarely been resorted to, when the general health was tolerably good. Laxatives have occasionally been prescribed, and a mild farinaceous or milk diet.— *London and Edinburgh Monthly Journ. of Med. Sci.* Dec. 1841.

Pharmacy in France.—The School of Pharmacy in Paris comprises five titular professors, "*professeurs titulaires*," and three assistant professors, "*professeurs adjoints.*" The other schools have three titular and two assistant professors. In each school there are also associated assistants, "*agrégés*," appointed for five years, who take the place of the professors in case of their absence, and assist at examinations. In the school in Paris there are five associate assistants, and three in the schools of Montpelier and Strasbourg. The titular and assistant professors are appointed by the minister of public instruction, from a double list of presentations, made, the one by the *School of Pharmacy*, and the other by the *Faculty of Medicine* of the town in which the school is situated. Each list of presentations contains the names of two candidates, but the same candidates may be presented both by the School of Pharmacy and by the Faculty of Medicine. No one can be named as titular professor who is not a doctor in physical sciences, and thirty years of age. The assistant professors are required to be licentiates in physical sciences, and twenty-five years of age. Both are required to have been admitted Pharmaciens in one of the schools of Pharmacy. The associated assistants are to be appointed by "*concours*," in a manner to be hereafter arranged in the council of public instruction. To be admitted to the "*concours*," it will be sufficient to produce the diploma of a Pharmacien and of a bachelor in physical sciences. The director of the school is to be chosen by the minister of public instruction, from among the titular professors. He is to be in office for five years, and is eligible for re-election. Each school is provided with a responsible secretary, chosen by the minister of public instruction, from among the titular or assistant professors. There are also one or more "*preparateurs*," who must have the degree of bachelor of physical sciences, and are appointed by the director, with the concurrence of the professors. The director ap-

points the officers and servants. The *instruction* in each school comprises:—

First Year.—Physics, Chemistry, and the Natural History of Medicines.

Second Year.—Natural History of Medicines, Materia Medica, and Pharmacy, properly so called.

Third Year.—Toxicology; and in the practical school, Chemical and Pharmaceutical manipulations.

No candidate can be admitted to an examination for the title of Pharmacien, who has not obtained the degree of bachelor of letters. Besides the two professors in medicine who are appointed to officiate at the examinations, three members of the College of Pharmacy must also be present, namely, two titular or assistant professors, and one associated assistant. The students of the Schools of Pharmacy, who have gained prizes at the "*concours*," are exempted from the fees. The amount remitted for each prize is to be regulated by the university. The names of the successful students are published.

The *receipts* and *expenditure* of the Schools of Pharmacy are carried to the national budget of public instruction. The titular Professor in Paris, is to receive a fixed annual salary of 4000 francs; in the departments of 3000 francs. The assistant Professors, in Paris, are to receive an annual salary of 2,400 francs; in the departments, 1,500 francs. The Director is to receive in addition, as a jointure, an annual stipend of 1,500 francs, in Paris, and 1000 francs in other colleges. The salary of the Secretary, in Paris, is 3000 francs; in the other schools, 1,500 francs. The salary of the Preparateurs, is 1,200 francs. The payment for attendance at the examinations is 10 francs for those functionaries who are called upon to officiate. The same is allowed to the professors, who are charged with the examination of herbalists. The fee for the annual certificate, granted to each student, is fixed at 36 francs in each of the schools. The charge for examinations remains unaltered; for the first examination, 200 francs; for the second, 200 francs; for the third, 500 francs. The expenses of operations and demonstrations, incurred during the third year, which are defrayed by the candidates, are fixed at 200 francs, in Paris, and 150 francs in the other schools.

The acquirement of the diploma of Bachelor of Letters, will not be required in the candidates for examination, until the 1st of February, 1844.—*Pharmaceut. Transactions, Oct.* 1, 1841.

Death from Erysipelas: Pricks by a Scalpel—Slight Razor Cut—Scratch by a Nail—Pulling out a Mole—Remedy for Bee Stings. By JAMES MEASE, M. D., of Philadelphia.—In the month of December last, it was stated in the newspapers, that a young man had died at Framingham, Connecticut, in consequence of using the same razor, (without wiping) to shave himself, which he had just before employed to shave his deceased father. The impression was, that some morbid matter on the face of the father had been applied to that of the son, and had caused his death. The principle of action—*humani nihil à me alienum puto*, might have been sufficient for me to inquire about the fact, but more was concerned than the indulgence of professional curiosity, or a benevolent feeling:—a life was in question; I therefore determined to ascertain the particulars, and accordingly addressed a letter to a gentleman resident in the town, requesting a communication of them. From him I received the following printed article, by the attending physician, Dr. Whitney, which appears to have been addressed to the editor of the newspaper, published in the place where the parties resided.

"*Framingham, Oct.* 29, 1841.

"Mr. Editor.—Having seen different accounts in the newspapers respecting the death of our very worthy and esteemed townsman, (Mr. Henry W. Coolidge) and knowing the circumstances of the case, I take the liberty of stating them to you as they occurred. The aged father, who had been sick for some time, died of a hepatic disease. He had too, as is frequently the case, at the termination of many diseases, a very bad thrush or canker in the mouth, attended with frequent hemorrhages. The son, who had always enjoyed good health and was well at this time, (with the exception of what he termed a cold sore or two on his lip) shaved the father after his decease. Then with the same razor, brush and soap, he shaved himself immediately. This was on Tuesday, and by the Saturday following, one of the sores upon the lip became very troublesome, affecting it internally and externally. On Sunday his disease progressed, and thus continued daily to increase, producing a most hideous swelling of the head and face, till the next Saturday, when he died. The disease was no doubt gangrenous erysipelas. Was it an idiopathic disease, or was it communicated from the father by means of the brush? Should think the latter highly probable.

"Yours, with respect, "S. W."

I presume the sores on the lip must have been irritated by

the edge of the razor, and given rise to the erysipelas. That the cause suggested was quite sufficient to produce this often unmanageable disease, is probable from our knowledge of its frequent occurrence after apparently slight local affections, and of serious consequences, and even death from them. Many anatomists have died from the irritation roused in the system by pricking a finger with a scalpel. Falck, an English author on syphilis, and of other medical works, and two professors of the Medical School in Dublin, died from the effects of the first accident. Falck, many years since, and the two last within ten or twelve years. Another lost his life from scratching his hand with the sharp edge of a rib. A few weeks since, a man cut one of his fingers when strapping his razor, and died shortly after, from inflammation and gangrene in his hand and arm. Another scratched his finger last year, with a nail in a barrel which he was handling, and died in the same way. I knew a dreadful and mortal cancer which destroyed the lower jaw, and finally life, to follow the pulling out a small mole in the chin; and I have recorded several cases of death from the poison of honey bees, an humble bee, and wasps, which they had manufactured from the sugar, or saccharine fluid sucked by them from flowers, fruits, or sweet cider. Death took place in 10, 20, and 30 minutes after the stings were inflicted.* The poison of spiders has been equally mortal as that of bees. But what was the modus operandi of these venoms? why, you will say, they *destroyed the vital principle*,—certainly,—but what is this? the answer leaves the inquirer as wise as before he asked the question. Here is a fine and new subject for a prize essay, by some learned medical corporate body. By the way, since the publication of my paper just referred to, a case occurred in the vicinity of Philadelphia, of a bee-sting which was attended with spasms and such high excitement as to require venesection twice. Aqua ammonia was also liberally given with good effect. This remedy should be applied immediately to the part after a sting, and also given internally, every ten or fifteen minutes, in doses of 10 or 15 drops in water, and the vapor inhaled by the nostrils.—*Am. Med. Intelligencer.*

---

* Amer. Journal of Med. Sciences, for Nov. 1836.

THE WESTERN JOURNAL.

Vol. V.—No. V.

LOUISVILLE, MAY 1, 1842.

THE PAST WINTER AND PRESENT SPRING.

It may be received as a fact, that the temperature of the northern hemisphere, since last Autumn, has been higher than for many years before. On the banks of the Ohio almost every month of the winter was so mild as to excite a constant anticipation of a cold and inclement spring. March and April, however, have passed away without even their ordinary rigors; and vegetation has been unfolded a fortnight or more in advance of the usual periods. In February and March there was so much rain as to cause a great swell in the Ohio river, but the temperature still remained genial. So little ice formed below the latitude of 41°, that it was imported from the upper Mississippi, even into Cincinnati.

Notwithstanding this high and equable winter temperature, we learn that in many parts of the West a dangerous pulmonary inflammation prevailed, accompanied in some cases with a typhoid, and in others with a congestive type of fever; bringing up in the minds of the older members of the profession, recollections of the pneumonia typhoides of 1812–14. In some places this pneumonitis or bronchitis combined

itself with scarlatina, constituting a very dangerous complication. In other cases a fever occurred, without the local affections characteristic of the diseases just named. Within the last two months measles have prevailed in a number of places, being in general uncommonly mild.

The object of this article is not, however, to give an account of the weather and diseases of the last few months; but to direct the attention of our brethren in the valley of the Mississippi, to the importance of making a full and permanent record of the diseases of the remarkable climatorial period through which we have just past, inasmuch as another of the same kind may not occur again for a long time. We shall be happy to receive and publish their observations.

D.

PROGRESS OF TOTAL ABSTINENCE.

We have lately made personal observations on the progress of the Temperance Reform from St. Louis, Missouri, to Chillicothe, Ohio, and are enabled to state that an extraordinary reduction in the use of intoxicating drinks has taken place within the last six months. Temperate drinkers have ceased to indulge themselves, and a vast number of habitual drunkards have suddenly broken off, and joined in the crusade against the use of alcohol. No class of men should experience more gratification at this reform than physicians, but we should not content ourselves with the happiness common to all benevolent men, when the sudden abandonment of a habit which all the world has regarded as pernicious to health, affords an admirable opportunity of studying its effects. We would then seriously urge on our readers, first, to note carefully the effects on health and constitution, of a sudden discontinuance of alcoholic drinks, previously taken to excess; second, to observe hereafter what diseases may disappear, in consequence of the diminution in the consumption of strong drinks.

D.

THE SANICULA MARILANDICA A CURE FOR THE BITE OF A SNAKE.

Some years since we received from Mr. J. F. Hamtramck of Missouri, an imperfect specimen of a plant said to be an efficacious remedy for snake-bite. On submitting it, a short time since, to Profes-

sor Short, whose knowledge of the botany of the central parts of the United States is most full and accurate, he decided that it was the *Sanicula Marilandica*. The following is a copy of the note which accompanied the specimen:—

"The root is the part employed as containing the medicinal qualities, and is used in three different ways; most generally the Indians carry the root about them in its natural dried state, and to apply it, masticate it sufficiently to form a full cataplasm, which they bind immediately over the wound. Others, again, pulverize the dried root, and carry it about them in a leathern pouch; when it is to be applied, it is previously moistened. Others, lastly, use it in its green state, in which case it is bruised into a mass. They always scarify the wound previous to the application. During a hunting tour through the upper part of Texas, which I took with the Osage nation in the fall of 1828, an Indian girl was bitten, as I was told, about 12 o'clock, while searching along a small stream for fire wood. We were encamped, and all the Indians out on the hunt. About an hour before sunset I got into camp, and was informed of the misfortune of the poor girl. On visiting her, I found her leg swollen to more than twice its usual size (she had been bitten on the outside of the leg, about midway between the knee and ankle), and she was apparently suffering the most excruciating agony. On the arrival of the first person from the hunt who had any of the root with him, we set about masticating it, while an old woman scarified the wound with the point of a butcher-knife, which the poor girl seemed not to feel in the least. A good large poultice was applied about dark; on the next morning, the swelling had entirely subsided, and the girl travelled on foot, from before day light, till at least 12 o'clock." D.

OPERATION FOR CLUB FOOT.

The communication from Samuel Silsbee, M. D., of Cincinnati, of which the following is an extract, would have been noticed some time since, but that it was mislaid. The Doctor was himself the subject of the operation—his age about 24 years.

"On the 22nd of February, 1840, the tendo Achilles was divided with but little pain, and the loss of a single drop of blood; and the

foot was placed immediately in a state of extension. On the 25th it was found necessary to divide the plantar fascia, which was done, but unlike the former operation, was attended with the most acute pain. On the 27th, scarcely more than a scar was visible of the operation. I was confined to my couch, and my whole time and that of many interested friends, was occupied in manipulating with the foot by frictions, extensions, emollients, &c. The progress we made was almost incredible, and such was the reproductive powers of nature, under a careful system of dietetics, conjoined with youth and good health, that about the 28th of March, the divided extremities of the tendon had reunited by new substance to the distance of 1½ inches, and in such a perfect manner that the point of division could not be distinguished. But in the progress of extension we were obliged to break the newly formed tendon. In seven weeks from the time of operation, the plantar surface of the foot could nearly be placed upon the floor; and in ten weeks the foot was placed in a straight leather boot, with stiff back, and straps to keep it in a state of extension, which apparatus, with some modifications, I have retained ever since.

When in this boot, I commenced using my foot; but for the first two months, I suffered most infinite torture from the pressure upon the phalangeal extremities of the metatarsal bones. This I presume time will obviate; in fact it has been much palliated by making holes in the sole of the boot, and by the free use of padding.

I also found, in spite of all the ingeniously contrived inventions upon which I spent much time, and no little money, including many of those most approved by eminent surgeons, exhausting my own patience and that of my workmen, that so much force was continually required to keep the foot in position, and such unequal pressure was unavoidably made on various points, as to keep me in a constant state of annoyance, amounting at times to actual suffering. From the same cause the development of the foot (if it were so inclined) was prevented. But the most unpleasant result of my experiment which I had to contemplate, was, that as my foot increased in strength (which it did, so much so that I limped along slowly, but without pain), my ankle grew stiff and immovable, in spite of warm baths, frictions, constant use, &c. This then was my condition 9 months after the operation, previous to which I was able to compete with any of my age in pedestrianism, and as far as my *foot* was concerned, equalled in agility most of my fellows. Now to whom, or to what can this failure be at-

tributed? I cannot, nor will any one, ascribe it to inattention, ignorance, or mismanagement on my part, for surely none could feel more personally interested in a favorable result than myself, and few operations commenced under more auspicious circumstances than did mine. That it is a *failure*, however, no one who sees my diminutive, misshapen libel upon a legitimate foot, and witnesses my decrepit progression, can for a moment doubt." D.

FRENCH MEASLES.

We extract from the letter of A. B. Price, M. D., of Centreville, Ohio, dated April 25, 1842, the following notice:

"I have nothing of much interest to communicate, except that the Dengue (or as it is termed in common parlance, French Measles,) prevails to a considerable extent in this section of country. It is mostly a mild exanthematous disease. One case which occurred a few days ago, was attended with excruciating pain in the left foot and ankle, slight swelling, but no discoloration. The skin was so sensitive that the least touch of the part caused the patient to cry out. Before the eruption appeared, the pain extended to the knee and back; the pulse was not much affected, nor was there much febrile movement. The eruption comes out freely, about the third or fourth day; there is no affection of the throat, nor cough; eyes slightly inflamed; pulse but moderately accelerated; skin hot; head-ache; tongue only slightly furred; some thirst; restlessness, chilliness, and flying pains through the back and legs. Such are the symptoms of this singular epidemic; it attacks those who have had the measles, as well as those who have not. It has been almost confined to the young—appears to be contagious—treatment simple—unattended by danger."

D.

DRY GANGRENE.

The letter from which we cut the above, has the following paragraph. In due time we shall publish the result of the case.

"I have a case of dry gangrene, subject 83 years old, remarkably temperate and robust, was never sick; the disease began in August,

has extended nearly to the knee, and is now separating from the sound flesh; with a little assistance nature now may perform a cure. I think the leg may be removed soon; he has taken no medicine of any moment for three months, until lately, and is now on a tonic course."

D.

FLOWERS OF SULPHUR AND CREAM OF TARTAR AND MAGNESIA IN DYSENTERY.

Dr. Wm. Sherer, of Meade County, Kentucky, during the past summer and autumn, was induced to try the effect of this compound in a dysentery which prevailed in his neighborhood. He used equal parts of those medicines, mixed with cream, to the consistence of thin custard, of which he gave a desert spoonful every hour. After narrating the history of the first case, in which he he employed this mixture, he goes on to say:—

"I subsequently treated, with complete success, all the cases of dysentery to which I was called, (and I had some 15 or 20) in a similar manner, without giving any mercurial purges, except in one or two cases, where the tongue, by its smooth, dry, and glossy appearance, indicated a suspension of the secretions of the mucous membrane. In these cases, a few pills of blue mass restored the secretions to a healthy condition. I am inclined therefore to the belief that mercurial cathartics are not only unnecessary, in the treatment of dysentery, but perhaps injurious, except probably in those cases where the biliary organs are considerably deranged, which, by the bye, so far as my observations extend, is not very common. The localities in which the dysentery prevailed, were identical with those in which the bilious and congestive fevers also prevailed. It not unfrequently happened that different individuals of the same family would be attacked at the same time, some with dysentery, and others with bilious fever."

D.

COLD DASH IN THE ASPHYXIA OF INFANTS.

Dr. Sherer, from whose letter we have just quoted, has on the same sheet furnished us with the following fact:—

"A negro woman whom I lately attended, had a pelvis so narrow in proportion to the size of the head of the fœtus, that the latter was a long

time in passing the straits, and when delivered was elongated to an extraordinary degree. Respiration did not commence, and all the usual means were employed without effect, except that a slight muscular contraction was once observed. At this moment one of the attendants (all of whom were of the Catholic faith), performed the baptismal rite; and in the hurry of the occasion the water was very profusely applied to the head and breast of the child. In less than half a minute it began to cry, and has ever since remained healthy."

For many years we have been in the habit of applying cold water, suddenly and with force, to the chests of new-born infants, when they were perfectly or partially asphyxiated, and regard it as superior to every other means of resuscitation. D.

LEADEN CANULA IN THE TREATMENT OF FISTULA IN ANO.

Dr. J. W. Letton, of Lexington, Mo., has given us the history of fistula in ano, successfully treated by the introduction of a leaden tube. The purulent discharge from the bowels was profuse; and the cavity on the outside was several inches deep. At the suggestion of Dr. Ward, a leaden canula, three and a half inches long and two lines in diameter, was introduced and maintained in its position by a T bandage. The purulent discharge rapidly declined, granulations quickly began to fill up the bottom of the cavity, a frequent shortening of the tube became necessary, and in 10 days, it was finally withdrawn, the fistula not being more than half an inch deep. Cicatrization soon followed, and the cure was perfect and permanent.

D.

LISTON'S ELEMENTS OF SURGERY—NEW EDITION.

Messrs. Barrington & Haswell, Philadelphia, have in press a new edition of that deservedly popular book, Liston's Elements of Surgery, with notes and additions by Dr. Gross, the accomplished Professor of Surgery in the Louisville Medical Institute. The work will be illustrated by numerous wood-cuts, and be comprised in an octavo volume of five or six hundred pages. It will appear early in June, when we shall take occasion to speak of it more fully. C.

NEW WORKS ON BOTANY.

We learn from a late number of the New York Medical Gazette, that the second part of the *Flora of North America*, by Drs. Torrey and Gray, was published on the first of April. The same Journal states that a new *Botanical Text-Book*, from the pen of Dr. Gray, will appear early in the present month. It will treat briefly of the structure and physiology of plants, the natural families of the vegetable kingdom, and contain a list of the principal plants used in medicine and the arts. The author's enviable reputation as a man of science, is a guarantee for the excellency of the forth-coming work. The Gazette says:

"This work will be of great value to those medical students who desire to gain a knowledge of botany, and we rejoice to say that the number of such is daily increasing. Indeed, we believe that the chief reason why botany has been so much neglected by the profession in our country, is, that the means of studying it scientifically have not been afforded them; the only text books within reach of the student, being of a character to disgust him with a branch of natural science, which, if properly presented to his view, could not but prove as eminently attractive as it is practically useful. This great difficulty will now be removed. Dr. Gray is well known, both in this country and abroad, as a man of true science, and we are rejoiced that a gentleman who has shown, by previous publications, that he is capable of *higher things*, has consented to prepare a text book of his favorite science. We bespeak for his work the favor of his profession. We have no doubt that it will be generally used in our medical institutions. We would suggest to those of our brethren who have a voice in the control of schools, academies, and other literary institutions, that they will do science a service by introducing Dr. Gray's Text Book."

C.

CORRECTION.

In page 12 of the list of graduates of the Medical Institute of Louisville in our last number, for ANDREW P. PRICE of Circleville, O., read ANDREW B. PRICE, of Centreville, O.